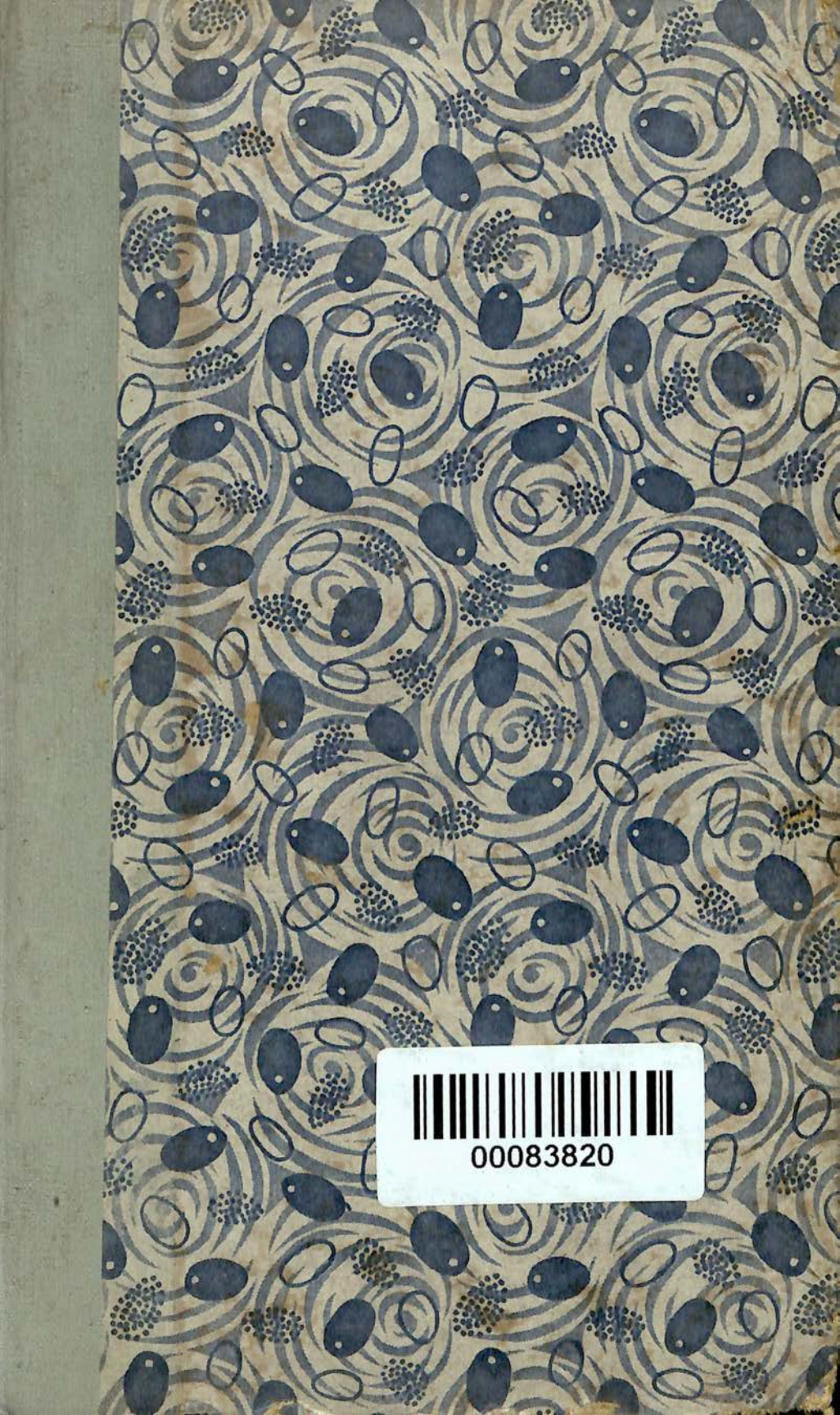
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HISTORICAL ACCOUNT

OF

DISCOVERIES AND TRAVELS

IN

NORTH AMERICA.

Frontispiece Vol. I.

Greenland Houses. Boat House. Chapel. Greenland Houses.

View of New Herrnhuth.

London Published by Longman, Hurst, Rees, Orme, & Brown, Oct.r 20, 18[illegible]

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THE

HISTORY OF GREENLAND:

INCLUDING

AN ACCOUNT OF THE MISSION

CARRIED ON BY THE

UNITED BRETHREN

IN THAT COUNTRY.

83820

FROM THE GERMAN OF DAVID CRANTZ.

WITH

A CONTINUATION TO THE PRESENT TIME;

ILLUSTRATIVE NOTES;

AND AN APPENDIX, CONTAINING A SKETCH OF THE MISSION OF THE BRETHREN IN LABRADOR.

W-6-27

Where the North Pole, in moody solitude,
Spreads her huge tracts and frozen wastes around;
* * * * * * * *
* * * * * where never sound
Startled dull Silence's ear, save when, profound,
The smoak-frost muttered: there drear Cold for age
Thrones him; and, fixed on his primæval mound,
Ruin, the giant, sits; while stern Dismay
Stalks like some woe-struck man along the desert way.

In that drear spot, grim Desolation's lair,
No sweet remain of life encheers the sight:
The dancing heart's blood in an instant there
Would freeze to marble. Mingling day and night
(Sweet interchange which makes our labours light,)
Are there unknown; while in the summer skies
The sun rolls ceaseless round his heavenly height,
Nor ever sets till from the scene he flies,
And leaves the long bleak night of half the year to rise.

HENRY KIRKE WHITE.

IN TWO VOLUMES.

VOL. I.

LONDON:

PRINTED FOR LONGMAN, HURST, REES, ORME, AND BROWN,
PATERNOSTER-ROW.

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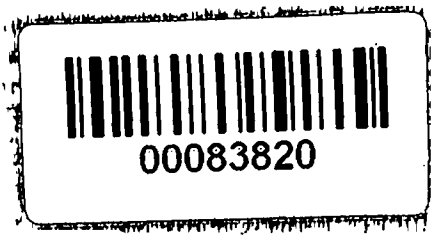

Printed by Strahan and Spottiswoode,
Printers-Street, London.

PREFACE.

In bringing forward a new edition of Crantz's History of Greenland to the notice of the Public, the Editors have laboured under peculiar difficulties. While it seemed derogatory from the reputation of Crantz, as a writer of much genuine merit, and some celebrity among his countrymen, to metamorphose his work by alterations and curtailments, it was evident that the many minute details of trivial circumstances, the fatiguing mass of heavy narrative, and the numerous repetitions of the original publication, would tend to exhaust the attention of the reader, and obscure the real excellencies of the work. The style also of the original German, required considerable alteration, to adapt it to the more perspicuous and refined model of modern composition. We are hereby far from insinuating, that the language of our Author is destitute of merit. It is in general simple, manly, correct, and energetic; and above all, possesses that fascinating charm, which sound judgment, united with veracity and integrity of purpose, can give to the production of a writer, though he be comparatively unskilled in the technicalities of composition. We may add, that Crantz's style will appear still more meritorious, when it is recollected, that as he wrote his book before the literature of Germany was enrobled, and its language refined, by the labours of a Schiller, a Wieland, or a Göthe, the works of his cotemporaries were chiefly remarkable for a certain clumsy strength, and could boast of very little beauty, or even propriety of diction. Contrasted with these, the language of the History of

Greenland will appear not only appropriate, but often elegant. Yet with all its merits, the phraseology of Crantz savours too much of the age and country in which he wrote to suit the taste of an English reader in the present dispensation of literature. The intrusion of a literal version of his history among the other publications of the day, would have much the same effect as the appearance of a person dressed in the costume fashionable at the beginning of the last century, in one of the emporia of modern gentility.

The former, almost verbal translation of 1767, retained all the defects of method, along with a style, far inferior to that of the original in comparative excellence; yet, it likewise preserved some portion of that homely strength and manliness which characterises its diction, and which may perhaps be missed by some readers of the present edition. The Editors trust, however, that in paring off the redundancies, and modernising the uncouth dress of the original, they have not wantonly departed from their text, and lost sight of a due regard to fidelity. Without suffering themselves to be cramped by an adherence to the old version, they have compared it throughout with the German, and sometimes made use of its rendering in such parts of it as seemed best executed.

In the first part of the work, delineating the face of the country, and the manners, superstitions, and traditions of its inhabitants, the alterations and omissions are few and unimportant; as it was not deemed necessary to suppress even those recitals of monsters and prodigies, which, though they seem to indicate a degree of credulity when admitted into the domain of sober prose, still found some quarter, and perhaps credence, with a man of our author's sound judgment. The chief improvements, if we may thus designate them, have been made in investing the subjects of natural history with the convenient nomenclature of modern science. And if this has been accomplished only in a very imperfect degree, the reader is requested to bear in mind that the scientific distinctions both of species

and genera are frequently wanting in the descriptions of Crantz. A few changes were also necessary to render the history conformable to the present circumstances of the country.

Far greater liberties have been taken with the remaining portion of the work, which contains the annals of the mission of the United Brethren in Greenland. Discarding the excessive prolixity with which the journals of the missionaries are abstracted, the Editors conceived that they would best attain their object by large and frequent omissions of such subordinate details as were not essential to the continuity of the narrative, while they gave at large only the more prominent and interesting parts.

In addition to Crantz's own continuation of several years of the narration, which has not appeared in English, the sources resorted to for the sequel of the history, have been the continuations of the History of the Brethren, in German, and the Periodical Accounts. Nor should we omit to mention the able and judicious "*Historical Sketches of the Brethren's Missions*," by the Rev. J. Holmes, to which the Editors have considerable obligations in this part of their labours. With respect to the Notes, it may be sufficient to observe, that they have been added, either to explain what appeared imperfect and unsatisfactory in the original, or to illustrate various interesting subjects. The insertion of such notes as touch upon debateable ground, will, it is hoped, be construed charitably, as they are not intended for the purpose of controversy, but of illustration.

For a favourable reception from the Public, the Editors mainly rely upon the intrinsic value of the work itself. It has long been a standard one in all that relates to Greenland, a distinction which the Author has deservedly gained by his industry and discrimination in collecting materials during his residence of a year in the country, and in collating the accounts of previous writers; together with his well known integrity in all that he advances upon his

own authority, and his scrupulous care to refer to the sources of his information for whatever did not fall within the sphere of his observation. Few of his opinions, even on matters of conjecture, have been disproved by the discoveries or theories which have been brought out by the rapid progress of science; and the general utility of his work is proved by the numerous writers on subjects connected with Greenland, who have gladly availed themselves of his labours. Nor can we avoid indulging the hope, that at a time when almost all the divisions of the Church of Christ are strenuously exerting themselves to spread his kingdom over the whole habitable globe, it may be gratifying to many to peruse the history of one of the earliest and most successful efforts towards the accomplishment of this object.

Without laying much stress upon the incident ourselves, or expecting our readers so to do, we cannot dismiss the subject without adverting to the opinion of one whose authority once stood high in the world of letters. We have it from a very respectable quarter, that when the old translation of the work was shown to the late Dr. Johnson, he declared that very few books had ever affected him so deeply, and that though the style was quaint and rugged, the man who did not relish the first part was no philosopher, and he who could not enjoy the second no Christian.

Fulneck School,
March 20, 1820.

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GREENLAND.
ICELAND
BAFFINS BAY
WEST GREENLAND
EAST GREENLAND
Greenland
Iceland
Spitzbergen
Hudsons Straits
Davis Straits
Greenland Sea
Iceland Sea
Baffins Bay
Hudsons Bay
Cape Farewell
Hecla Fort
Hecla Fort
Greenland
Iceland
Spitzbergen
Hudsons Straits
Davis Straits
Greenland Sea
Iceland Sea
Baffins Bay
Hudsons Bay
Cape Farewell
Hecla Fort
Hecla Fort

THE

HISTORY

OF

GREENLAND.

BOOK I.—CHAP. I.

Of the Country in general.—I. *Its Situation and Boundaries.*—II. *Name and Aspect.*—III. *Geography of the West Coast, Fredericshaab, Fisher's Lodge, and Lichtenfels.*—IV. *Godhaab and Zukkertop: Mission at New Herrnhut, and summary Computation of the Inhabitants.*—V. *Holsteinburg, South Bay and Egede's Minde.*—VI. *Disko Bay, Christianshaab, Claushaven and Jacobshaven.*—VII. *Rittenbenk and Noogsoak.*—*Face of the North Country.*—VIII. *Face of the South Country.*

I. GREENLAND is well known as the most northern tract of land lying between Europe and America; and considering its vast extent, compared with the small part as yet known to Europeans, may be justly numbered among the unexplored regions of the north. Various navigators have coasted it from the most southern point, the promontory of Farewell, in lat. 59°, proceeding in a north easterly direction towards Spitzbergen, as far as 80° north latitude, and towards the north or north-west as far as lat. 78°. No vessel, however, has hitherto gained its northern extremity, so that we cannot determine with

any degree of certainty, whether it be an island or connected with some other continent. That it is joined towards the east to Spitzbergen, Nova Zembla, or the north of Tartary, was only a vague conjecture which has been exploded by the discoveries of the Dutch and Russians. Another supposition, that it terminates on the north-west in America, admits of being supported by much more probable arguments. In the first place, Davis's Strait, or more properly Baffin's Bay, is known gradually to contract towards the north; and the shore, though generally high where it borders on the open sea, flattens as we advance nearer the pole. Again, the tide, which, near Cape Farewell, or even *Cockin's sound*, lat. 65°, rises at new and full moon more than 18 feet, seldom exceeds two fathoms in the neighbourhood of *Disko*, and may probably, as we proceed still farther north, entirely disappear. *

To these reasons we may add the testimony of the Greenlanders themselves, though not much to be relied upon. According to their accounts, the strait at last becomes so narrow, that the natives of one coast may be heard by their neighbours on the other; and that were it not for the rapidity of the current which sets in a southerly direction through the middle, they would even be able to visit each other.

II. The name *Greenland* was first given to the east side by its discoverers, the Norwegians and Icelanders, on account of its uncommonly verdant appearance. This side, generally called ancient or *Lost Greenland*, is at present entirely unknown to us; since, owing to the prodigious quantities of floating ice, none are able to approach it.

The tales of Icelandic writers, who describe in glowing colours the fertility of ancient Greenland, with the beauty of its villages and churches, are generally considered to be completely chimerical. However, it ought to be mentioned, that traces of a superior state of cultivation have been observed also on the west coast; and

* See Note I.

remnants are still to be seen there of dwelling-houses and churches, probably erected by the Norwegians; so that in this respect it may have been no way inferior to the more famous eastern side.

West Greenland is inhabited by Europeans between the 62d and 71st degrees of north latitude, and has sometimes been erroneously termed by voyagers Davis's Strait, which again has not unfrequently been confounded with the whole arm of the sea separating Greenland from America. Davis's Strait, properly so called, is only that narrow channel, about 40 leagues broad, between the promontory of Walsingham on James' island in North America, and *South Bay* in Greenland; and extends from lat. 71° as far as *Disko* island.

It is called after John Davis, an Englishman, who discovered it while endeavouring to find the north-west passage, and has since that time been visited by various nations, on account of the whale-fishery; especially by the Dutch and English, who have furnished us with the best outlines of the coast.

The shore, on this side, is high, rugged, and barren, rising close to the water's edge, into tremendous precipices and lofty mountains, crowned with inaccessible cliffs, which may be seen from the sea at the distance of a hundred miles. In these respects, it bears some similarity to the coast of Norway, with this difference, that the Norwegian mountains are clothed with wood, and rise with a more gradual ascent.

All the Greenland hills, except where the rocks are smooth and perpendicular, are covered with eternal ice and snow, which accumulate particularly on elevated flats, entirely filling many valleys, and in all probability increasing from year to year. Those rocks on which the snow cannot lie appear at a distance of a dusky-grey colour, and without any signs of vegetation; but upon nearer inspection they are found to be streaked with numerous veins of coloured stone, with here and there a little earth, which affords a scanty nourishment to some hardy species of heath. The valleys, which con-

tain several small brooks and ponds, are overgrown with a sort of low brush-wood.

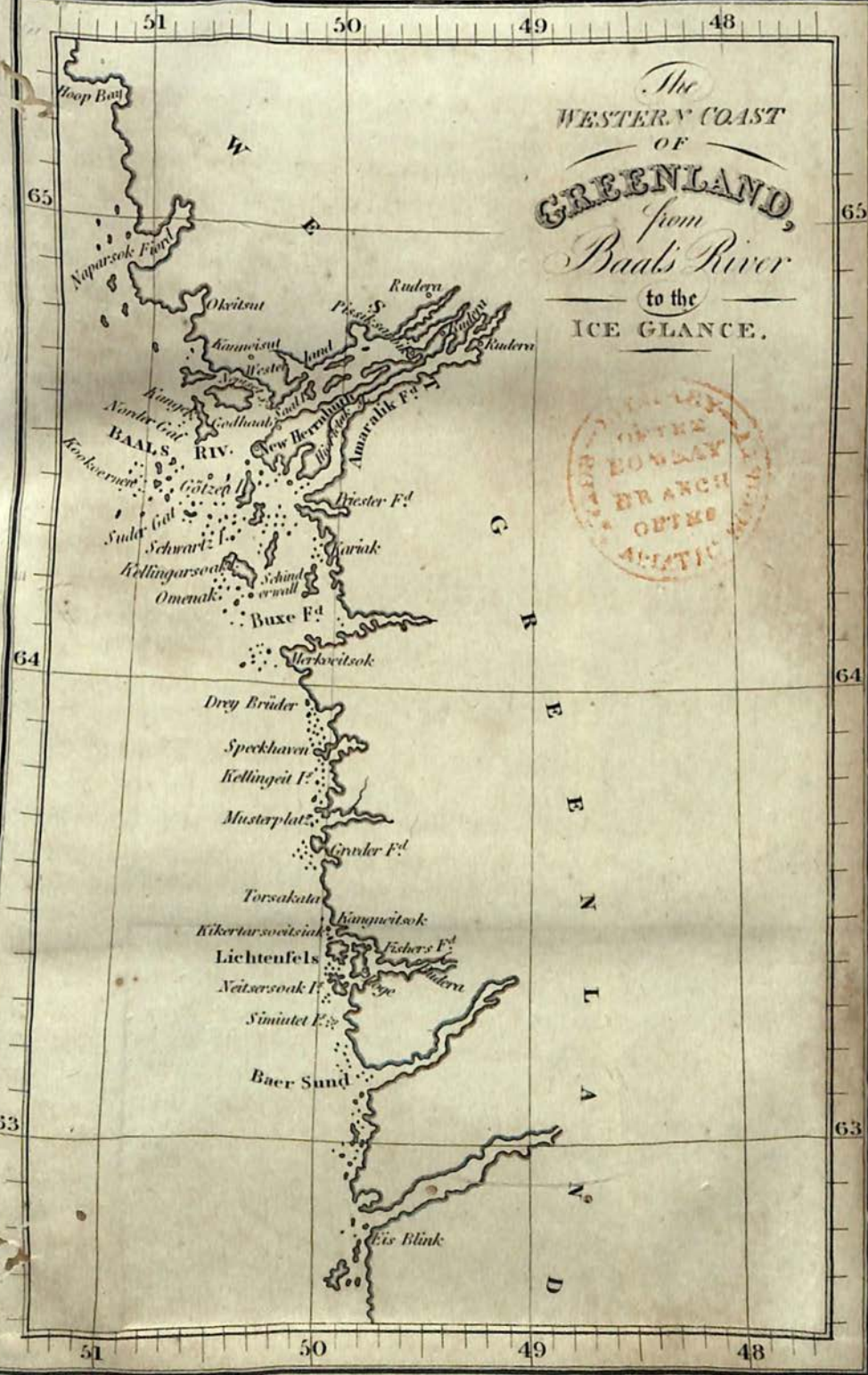
The whole coast is indented with a series of deep bays or fiordes, which penetrate a great way into the land, and are sprinkled with innumerable islands, of various dimensions, and the most fantastical shapes.

III. Of so wild a country, only thinly inhabited on the coast, a long geographical description would be needless. It may, however, be proper to give a brief account of the principal places, as they lie in order along the shore, obtained chiefly from a merchant who resided a great number of years in the country.

The majority of the Greenland nation live between Staatenhuk and lat. 62°; or, as the natives usually express it, in the south. In this part of Greenland no Europeans have settled, so that it is but very partially known to us.

Farther north the first place deserving notice is the colony of *Fredericshaab*, founded in the year 1742 by Jacob Severin, a Danish merchant, upon a projecting point of land, called by the Greenlanders *Pamiut*, or a tail. It is an eligible place for trade, and possesses a good harbour, about a mile distant from the open sea. On an island to which the Dutch merchant vessels resort, many Greenlanders have fixed their abode, as they find there abundance of seals and rein-deer.

The first traders, Gelmeyden and Lars Dalager, and the first missionary, Arnold of *West Sylo*, came hither from *Godhaab*. This colony, *Fredericshaab*, had at its first commencement to struggle with many difficulties. In the first place, the ship which brought over the first settlers from *Godhaab* was lost on its return to Jutland, and every soul on board perished. Another ship, sent over by the colonial establishment, was necessitated to winter in Norway, at a great expense. In the year 1743, a vessel freighted with provisions from *Godhaab* was wrecked, and half of the cargo destined for the use of the colony lost, with two of the crew. In the year 1744, the ship, when only eight



Sidn. Hall Sculp.

London, Published May 20th 1819, by Longman, Hurst, Rees, Orme & Brown, Paternoster Row.

miles from the harbour, sprung a leak, in broad day, against a piece of ice, and the crew barely escaped in a boat to land, after spending two days and nights at sea. In the ensuing years, it was frequently impossible to get her into port on account of the floating ice; and it became necessary to unload her cargo near *Godhaab*, and convey it in boats to *Fredericshaab*, a distance of forty leagues. Of late years, the ice has not been so troublesome, and the colony has been almost entirely rebuilt. It carries on at present a brisk trade in blubber, and the skins of foxes and seals.

Three leagues north of *Fredericshaab* is a bay abounding both in capelins and herrings.

At a distance of about nine leagues from the colony is the well-known *Ice-blink*. It consists of a large and elevated sheet of ice, casting by its reflection a brightness over the sky, similar to the northern lights, which may be seen at a great distance from the sea. The mouth of the adjoining bay or fiorde, is blocked up by ice driven out by the efflux of the tide, and so wonderfully piled up by the waves, that the spaces between the islands are completely vaulted over, and the whole presents the sublime spectacle of a stupendous bridge of ice, of eighteen miles long and four and three-quarters broad. Under the arches of this bridge, which are from twenty to sixty yards high, boats may enter the harbour, though threatened with destruction by the masses impending from above. Large pieces of ice also, detached from the mountains, are frequently driven through by the tide. When the Greenlanders wish to fish in this bay, they carry their kajaks over land, and then find an open sheet of water, 12 leagues long and about one in breadth.

Remains are found along the shores, of Greenland houses, whence we may conclude, that the mouth of the fiorde has not always been closed. The points of land, which run out a great way into the sea, on both sides of the *Ice-blink*, consist of banks of sand so fine and light, that when agitated by the gentlest breeze, it darkens the air like a cloud, and fills the eyes and

mouths of all who approach within eight leagues of the shore.

About 20 leagues from the colony there is an opening in the land, called in the maps *Bear's Sound*, through which many suppose that there is a passage to the east side. If we may credit the accounts of the Greenlanders, remains of old Norwegian buildings are found on its shores.

Not far from this opening there is a lake of brackish water, which has a communication with the sea, at high water, by means of two narrow channels. In spring, speckled seals flock in great numbers to this lake, and are easily taken by the Greenlanders in an ebb-tide.

In lat. 63° and 20 leagues north of *Fredericshaab* there is a narrow fiorde, to which the first missionary, Egede, gave the name of *Fish-bay*, from its containing a great variety of fish. Near its mouth lie two considerable islands, from 12 to 16 miles in circumference. On the southernmost of these the so called *Fisher's-lodge* is built on an agreeable spot overgrown with tall grass. The Greenlanders call this part of the country *Kikkertarsueitsiak*. On one of the islands is a lofty mountain, by comparing which with the circumjacent summits the Greenlanders trace their way to the bays frequented by seals.

The lodge was built in 1754, according to an order from the general board of commerce, by Anders Olsen, principal of the colony at *Godhaab*. The trade in blubber, &c. is at present not very flourishing, as but few Greenlanders live in the neighbourhood.

About four miles from the lodge, the United Brethren, in the year 1758, built their second settlement, called *Lichtenfels*, which will be particularly described in the proper place.

Farther up in the bay, ruins are found, and among them pieces of a metal similar to bronze, probably fragments of bells used in the old Norwegian churches. Eight miles farther north lies *Innuksuk*, a Greenland place of residence; and again twelve miles farther, the

Groede fiorde, also frequented by Greenlanders. At a short distance from hence is a large creek, with an even, sandy shore, which, on account of its extent and flatness, is called the muster-place, but at present uninhabited. Here the trade of the lodge may be said to terminate.

Next in order come the islands of *Kellingeit*, or, as the Danes call them, *Klingarne*, which lie within the sphere of trade belonging to the colony at *Godhaab*. Seals are caught here in great abundance, as they may be easily intercepted in the narrow channel between the islands. Five leagues from hence is *Merkoitsok*, and the *Buxe Fiorde*, a Dutch harbour, where roving Greenlanders frequently spend the winter. The island *Kellingarsoak*, twelve miles farther north, was formerly well-peopled, and is only a short distance from the river *Kariak*, on the banks of which many Greenlanders still reside.

About four miles from *Kariak*, the large *Amaralik Fiorde*, thirteen leagues in length and three in breadth, penetrates into the land in a north-easterly direction. Close by its mouth is the *Priester Fiorde*, so called because the first missionary, Mr. Egede, had purposed settling a colony there, on account of the abundance of grass and underwood in the place. The reindeer and seal-hunt in the *Amaralik Fiorde* is very productive. In the adjacent country there are ruins of old Norwegian villages, with abundance of free-stone, and veins of red granite; but very few Greenlanders reside in the neighbourhood.

A few miles farther we pass under the *Hiorte Tak*, or *Stag's horn*. This is the highest mountain in the neighbourhood, perhaps in the whole country. The highest of its three peaks is visible from the sea, at the distance of 100 miles and upwards, and owing to its steepness is free from snow, except in the hollows.

This mountain is a beacon to navigators, and a weather-guide to the Greenlanders; for when a tempest threatens from the south, its summits are enveloped in a light mist.

The *Kobe Fiorde* winds along this mountain ten miles inland, receiving the waters of a little *Elve* or brook, which deepens here and there into small ponds. Near this brook there is a good rein-deer hunt.

Proceeding northwards under the *Malina* and *Kyper* or partridge mountains, we next arrive at *Godhaab*, the third colony, lat. 64° 14′, about 70 miles north of *Fisher's Lodge*. It is situated in *Balls Revier*, a bay which runs into the land in a north-westerly direction, 60 or 70 miles in length, reckoning from the islands in its estuary. These islands lie close together to the number of some hundreds, within a compass of four leagues. The remotest of them are called *Kookörnen* or *Cock islands*, by the Greenlanders *Kittiksut*. Between them and *Kangek* to the north is the usual passage, the *North Gat*. *Kangek*, called by the Danes *Hope Island*, is surrounded by many smaller islands. *Westerland*, which borders on *Kangek*, is separated from the main-land by a narrow water, called *Nepiset* or *Catfish Sound*. In autumn, the Greenlanders have their best seal-fishery here. Towards the south, the *Kookoernen* are separated by the *South Gat*, another passage, from a multitude of considerable islands. On the peninsula opposite the *Kookörnen* is the harbour with the blubber-house adjoining. About a mile from the sea, the Brethren's settlement of *New Herrnhut* is situated, and the same distance farther north the colony of *Godhaab*. Besides the principal building, in which the factor and the missionary reside with their people, there is also a store-house, smith's-shop, and brew-house belonging to the establishment. The church stands by a brook not far distant, and the houses of the Greenlanders lie scattered round it.

Farther up is the *Wildman's Ness*, where Eider ducks are shot in abundance during the winter evenings; and near it lies the island of *Saalberg* or *Saddlehill*, so called because its topmost peak, which may be seen 90 miles off, resembles a saddle in appearance. Not far from thence is the *Bear island*, and close by it the island of *Aupiʻlartok*. Both these islands are about twenty miles

in length, and are very elevated. They divide the channel into two bays, one of which runs up north-east to *Pissiksarbik*, the best capelin fishery. On the western side of the north bay lies *Kanneisut*, an extensive and level coast with little rocky hills. It has a good salmon fishery, and a lake of fresh water at least 20 miles long, which does not however contain many fish. This bay again divides into two arms, near one of which, called *Ujaraksoak*, the finest *Weichstein* is found, and the remains of Norwegian buildings occur in the greatest abundance. This north bay is separated from that of *Pissiksarbik* by a narrow neck of land, and both these are again divided from the *Amaralik Fiorde* by the long peninsula on which *Godhaab* stands.

IV. *Godhaab*, the oldest colony in the country, was founded in 1721, in *Kangek*, by Mr. Hans Egede, the first missionary, and Mr. Jentoft, the factor, who were commissioned for this purpose by a company in Bergen. In 1728 the establishment was removed to the mainland by Governor Paars. Its trade is one of the best in the country.

Formerly some thousands of Greenlanders inhabited the banks of this river; but since an attack of the small-pox in 1733, they have decreased so much, that very few natives are seen in the neighbourhood, besides those under the care of the missionaries, and roving families of Southlanders, who are fond of wintering in *Kangek*.

A factor who resided many years in the country, and took pains to gather the most authentic information from the Greenlanders, made the following estimate of the population on the west coast. Within the compass of his trade, extending 80 miles along the coast, about *Ball's river*, he computed only 957 regular inhabitants. Yet this part of the country is next in population to *Disko Bay* and the south coast. In some districts a man may even travel 40 miles without meeting a human being. Now computing the inhabited part of the shore to be 800 miles in length, and allowing 1000 souls to a tract of 80 miles, in consideration

of the superior populousness of the north and south parts of the coast to that from which our estimate is taken, we shall have a total of 10,000 inhabitants. The above-mentioned factor, however, deducts 3000 from this amount, because so many tracts of land are absolutely desert. He asserts, that in the year 1730 the Greenland nation amounted to 30,000; that in 1746, when he made his first calculation, it could still reckon 20,000; and that since that time it has suffered a diminution of two-thirds, or at least one half of its numbers.

The first station of Greenlanders from *Kangek* northwards is *Pissugbik*, 20 miles distant. Eight miles further is a fishing bay, where the first missionary had thoughts of settling, induced by the fishery and the quantity of grass. Twenty leagues from *Godhaab* lie the *Napparsok* islands. Here, and on the opposite continent, grass and drift wood are found in abundance. There is also great plenty of fish, birds, and seals. The ice fields, which float with the current and a strong south wind round *Staatenhuk* from the east side, do not pass beyond this point, as here the force of the stream subsides, and loses itself altogether still farther to the north. In 1756, the ship destined for *Godhaab* was forced to run in here, and wait till a north-east wind had cleared the shore of ice.

At no great distance is *Omenak*, a Greenland station. The former inhabitants of this place were infamous for murder throughout the country.

We next come to the *Saal* or *Saddle mountains*, so called by the Dutch. There are several islands adjacent; one of which, the *Kin of Saal*, serves as a landmark to voyagers.

In this tract asbestos or cotton-stone, crystals, red marl, and white marble, occur in large quantities. Here also we find the last vestiges of the Norwegians. There are no indications of their having penetrated further north.

Forty leagues from *Godhaab*, lat. 65° 46′, is the fourth colony of *Zukkerlop*, (*Sugar-loaf*,) situated on the small

island of *Kangek*, in *Bruyne bay*. It was founded in 1755 by order of the company of trade, by Anders Olsen, factor. It owes its appellation to three conical peaks, by which the seamen steer their course when entering the port. The harbour is very safe and commodious, lying between two little islands, a mile distant from the open sea. The country is barren and dreary, and has no rein-deers. Whales, however, which are extremely rare in more southern parts, are not unfrequently seen in the bay. They make their appearance in January and February, but they are seldom taken by the Greenlanders, and by the Europeans never, owing to the want of the necessary boats and tackle. The factor struck one once, and not having line enough, fastened it to some empty casks instead of the bladders used by the Greenlanders, but the fish escaped.

The Greenlanders in the vicinity are few, yet the trade is pretty flourishing. No missionary as yet resides here; but there is a catechist, Berthel Larsen, the eldest in the Danish mission, and the greatest proficient in the language.

Coasting along by two fiordes, we arrive, after a run of 40 miles, at a large island. It lies low, with deep valleys, and is frequented by salmon. There is found here a white shining clay, which does not burst in the fire. Amongst the rocks is one of particularly large size, with a deep valley in the middle, which is overflowed at high water. Here frequently more than a hundred seals enter with the tide in fair weather, and are caught and killed by the Greenlanders when the water retires.

In lat. 67° lies *Wyde-fiorde*, and opposite to it the island of *Nepiset*, or *Nepisene*. Upon this island a lodge was built in the year 1724, for the advantage of trade and whale fishing; but it was forsaken the year after, and all the houses were burnt by the crews of foreign vessels. In the year 1729, a colony was established in the same place with a fort adjoining, which

were also abandoned and demolished a short time after, by order of the king.

V. Not far from hence, and about twenty-six leagues north of the *Sugar-loaf* lies the *Amarlok-fiorde*, where the Greenlanders catch every year a number of whales. Here also was founded the fifth colony, called *Holsteinburg*, in memory of the Duke of Holstein, member of the privy-council, and president of the honourable missionary society. The present missionary's name is Jacob Borch. Captain Niels Egede, son of the first missionary, holds the office of merchant; and Christian Wolf, that of catechist. They, however, mutually assist each other in the several occupations. The spot on which this colony is built, is one of the most eligible, both as an agreeable residence and convenient trading-place.

Eight leagues from *Holsteinburg*, and in lat. 67° 30′, lies the well-known *South-bay*, the best harbour belonging to the Dutch whalers, and a suitable place of rendezvous when the fishing season is over. A colony was founded here in 1756, but since the settling of *Holsteinburg*, only one man resides on the premises, who buys in the blubber from the few Greenlanders in the neighbourhood.

Thirteen leagues farther, and in lat. 68°, is the seventh colony, founded in 1759, by Captain Egede, and called *Egede's Minde*, in memory of his father. The present merchant is called Mr. J. Petersen, who, at the same time, holds the office of catechist.

The whale fishery is often very productive near the two factories; but most of the Greenlanders have withdrawn from their vicinity, although it is rich in all kinds of birds and fishes. In the neighbourhood of the last mentioned place, the sea is frozen throughout the winter, and not clear from ice till May, when the season for catching whales is past. On this account, it has been in consideration to transplant the colony farther north to the *Dunk* islands.

VI. Next in order come *Riffkol* and *North-bay*,

beyond which, the sea penetrates into the land in a south-easterly direction, and forms the well-known *Disko-bay* filled with groups of small islands, of which the most considerable are, the *West*, *Whale*, *Green*, *Dog*, and *Dunk* islands, extending partly towards the east into *Spiring-bay*, and partly to the north, as far as *Disko island*. The entire circuit of the bay is about 120 leagues. The land round about it is high, flat on the top, and covered with ice; though the shores along the roads is smooth and level. There is a place in the neighbourhood called *Schans*, which, according to the Dutch charts, contains a vein of good stone-coal, though it has hitherto never been worked. It is remarkable, that *Disko island* is frequented by rein-deer, which is the case with no other. The channel which separates it from the main land is called *Waygat*, and is about four leagues in breadth. The fishery in the bay is the most productive of any in the whole country; as in winter, when it is frozen, the Greenlanders kill vast numbers of seals upon the ice, and in spring, frequently catch small and even full-grown whales in it. It is also the yearly resort of many Dutch whalers.

The population of *Disko-bay* is more numerous than that of any other tract in Greenland, except perhaps the most southern part, where there are no colonies. Trade consequently flourishes most in its vicinity.

The eighth colony, *Christianshaab*, was settled in 1734, by order of Mr. Jacob Severin, in *Viire-bay* lat. 69° 30′, or, according to others, 68° 34′. The first missionary who resided here was Mr. Paul Egede, son of the late much-respected superintendant Egede, and now professor at Copenhagen, and provost of the royal Danish mission in Greenland. The present factor's name is Svanenheilm Lilienskiold; but Mr. Block, in the year 1752, removed the mission five leagues farther north, and at the same time settled the lodge of *Claushaven*. The assistant factor, who lives here at present, is called Hammond; the missionary, Stage;

and his catechist, Jens Petersen Mönk. It is in agitation to build a church in the place.

Three leagues farther to the north lies *Ice-fiorde*, which the Greenlanders report to have been an open sound, penetrating as far as the east-side; but it is at present entirely blocked up with ice. Numerous ice-mountains of the largest size are yearly driven out of this bay. As many Greenlanders live in the neighbourhood, the tenth colony of *Jacobshaven* was planted in 1741, at no great distance, on the shore of *Maklykuyt fiorde*. It is called after the late director of the trade, Mr. Jacob Severin. The present superintendent is named Peter Hind; the missionary, Fabricius; and his catechist, Jacob Paulsen. That ship which receives the produce of the three last mentioned factories, often returns home with a freight of more than 400 barrels of blubber.

VII. From *Jacobshaven*, ships sail for 14 leagues, first to the north, and then westward, before they arrive at the mouth of *Disko-bay*, passing in their course the eleventh colony, *Rittenbenk*, founded in 1755, by Mr. Charles Dalager, who still resides there, in capacity of factor. In its vicinity, a white close-grained species of whet-stone is found, called oil-stone.

The twelfth and last colony, *Noogsoak*, or the *Great Ness*, was built in the year 1755, at the extremity of the *Waygat*, lat. 71°. A ship touches every year at both of these places; but their exports have hitherto been but small, as the spot on which the latter stands is badly chosen. Measures have therefore been taken to remove it some leagues farther north, to *Jacob's creek*, where many Greenlanders reside. There is no missionary in either of them. A catechist lives in *Rittenbenk*, whom the Greenlanders call Jacungoak, little Jacob. Concerning the face of the country still farther north, our knowledge is exceedingly confined. William Baffin, who sailed in the year 1616, with Capt. Robert Bylot, in search of a passage through Davis's Straits, and who has given his name to all that part of

the sea, between lat. 72° and 78°, affirms, that he traded with the Greenlanders as far north as *Horn-sound*, in lat. 73°. Even in lat. 74°, he was led to conclude, that the Greenlanders had a summer residence, from the traces of tents visible in many places along the coast. The sea was found to contain abundance of seals and sea-unicorns, and in Thomas Smith's sound, lat. 78°, whales of the largest size were observed. The Disko Greenlanders say, that the land extends for more than 150° leagues north of their residence, and consequently as far as lat. 70°; but it is very thinly inhabited, though it abounds in eider-fowl, white bears, and seals; no one being desirous of living in a place where the winter night is so long and cold. There is also a scarcity of wood and iron, which the more southern Greenlanders receive in exchange for the horns of the sea-unicorn. The face of the country presents nothing but naked rocks covered with ice, so that the natives are forced to buy even the grass which they use in their shoes. Their houses (instead of the wooden rafters and sods) are roofed with the horns of the sea-unicorn, clay, and seal-skins.

The land stretches in a north-westerly direction, towards America, and is bordered with numerous clusters of small islands. Here and there, upright stones with projecting arms are said to be found, which look like our road-guides. Fear has also coloured them white, and given rise to the fable of the gigantic *Kabtunak* (European) standing on a mountain, to whom passengers offer up a piece of whalebone.

The southern part of Greenland, which is likewise uninhabited by Europeans, is better known to us than the extreme north. In the autumn of 1723, Mr. Egede undertook a voyage of discovery thither, of which a brief account will be given hereafter. In the years 1749 and 52, a traveller too in the pay of the Greenland company, went on several trading expeditions; during the last of which he spent two summers and one winter in the south. Very little is known concerning the particulars of his journey, and we

must still depend for most of our information upon the relations of the Greenlanders living in those parts, a number of whom pay a yearly visit to the north.

From *Fredericshaab* to Cape Farewell, they reckon a five days' journey, which, calculated along the windings of the coast, may amount to about 60 or 70 leagues. The different stages at which they usually take up their night's lodging are the following:

1st, *Sermeliarsok*, or the great ice-bay, lat. 61° 20'. This is probably no other than the noted Frobisher's Strait, but it is now entirely blocked up with ice.

2d, *Kudnarme*, a populous place, on a high headland, in the vicinity of which are numerous islands. At some distance from hence, a long, narrow, and low neck of land stretches into the sea, called by the Greenlanders *Ittiblik*, which they never like to double, as the sea in its vicinity is uncommonly tempestuous. They therefore unload their boats and carry them over land.

3dly, *Kikkertarsoak*, or the great island, with an harbour, in which Dutch vessels formerly carried on a brisk trade with the natives. In the year 1742 a Dutch ship lying at anchor here was crushed to pieces by the ice, which the south-storm drove into the harbour, and the crew escaped with difficulty in a boat to the whalers in South bay.

4thly, *Ikkersoak*, or the broad sound, a short distance from which lies the fiorde of *Igalik*, or (*cooking-place*,) where many angular transparent stones are found, so hard that glass may be cut with them.

Next come *Tunnuliarbik*, or Corner fiorde, with a good harbour, *Kangek*, and *Aglutok*. In all these places many Greenlanders reside, and they are probably situated in the most fruitful and agreeable district of all Greenland. The natives often boast of their fertility, and invite Europeans to visit them. In their vicinity also, remains of old Norwegian buildings are found in the greatest abundance.

5thly, *Onartok*, or *warmth*, a beautiful verdant island, situated in the estuary of a pleasant bay. It takes its name from a warm spring, which boils up winter and

summer, and is so hot that ice thrown into it melts immediately. There is a good seal-fishery in the neighbourhood, to share in which the Greenlanders come over from the east side, a journey of five days.

Next follow two populous islands, *Sermesok* and *Nennortalik*, or ice-island and bear's-island. Both lie in lat. 59°, and constitute the well-known promontory of Farewell. They are surrounded by numerous groups of islands of various dimensions. These are separated from the main land by a tolerably broad sound, through which there is a passage to the east side. The Greenlanders say, that on the east coast of these islands, they do not any more see the sun rising from the land but out of the sea, from which we may infer that they are the most southern points of the country. *

* See Note II.

CHAPTER II.

The Sea and Ice.—I. *Strait of Frobisher.*—*Opinions concerning it.*—II. *Tour in the Neighbourhood of the Ice Blink.*—III. *Icebergs, where and how generated.*—IV. *Floating Ice.*—V. *Dangers of Navigation amongst the Ice Fields.*—VI. *Conjectures on their probable Formation.*—VII. *Large Ice Field in Ball's River.*—VIII. *Annual Increase and Recess of the Floating Ice.*—IX. *Drift Wood.*—X. *Tides, Springs, and Rivers.*

I. *FROBISHER's Strait* and the *Bear Sound* are both marked in the Dutch charts as channels intersecting the country from east to west. Besides these, the *Ice Fiorde* in Disko Bay is supposed to have been another passage to the eastern side. But if there were at any time open channels in these places, they are now entirely filled up by the ice. Mr. Egede failed in the attempt he made in 1723 to discover *Frobisher's Strait*, and the Icelanders in their descriptions of ancient Greenland make no mention of such a passage. In all probability the strait to which Frobisher gave his name, is no other than the great ice bay *Sermeliarsok*, situate a day's journey south of Fredericshaab, and now completely blocked up by the ice.* The following extract from a communication made to me by a factor, Lars Dalager, who resided many years at Fredericshaab, will throw some light upon this subject.

"It had frequently struck me," he writes, "as something not easily accounted for, that a mere firth, though ever so extended, should continually discharge such immense quantities of ice without any sensible decrease

* It is almost needless to observe, that modern geographers place this Strait on the American coast. Tr.

in the remainder. From July to November, a strong current in calm weather carries out the ice in such abundance, that it covers the sea for an extent of twenty leagues from land, reaching ten or eleven miles in breadth. On enquiring the cause from the Greenlanders, I received for answer: 'The opening is large, and has no end: our forefathers have told us, that they could pass through it.' As this was all I could gather, in 1747 I ventured to go ten leagues across the ice into the bay, and in company with some Greenlanders ascended a hill whence I hoped to gain a prospect of Frobisher's Strait. But there was little to be seen; nothing but mountains and ice appeared in the horizon at the distance of thirty leagues; the country, however, where the strait ought to lie was visibly lower, yet covered with ice flakes heaped confusedly together. Though we were disappointed in the prospect, our ears were assailed by sufficient of the marvellous. The violent rumbling and cracking of the ice, loud as the report of artillery, succeeded by a violent rushing like the roar of a waterfall, excited mingled sensations of terror, wonder, and delight. Though I now plainly distinguished the frozen valley, and heard the flow of the water, and could thence conclude that there must be a strong current underneath; yet I could not comprehend how this channel should be so totally obstructed by the ice, or how it could every year, within the space of a few days, impel so vast a field of ice into the sea. In September 1757, I received some explanation of this difficulty from a journey which I made with some Greenlanders along the *Ice-Blink Bay*, as high up into the interior as any Greenlander has ventured. I then discovered that, though nothing but firm land coated with ice appear sea-ward, there may still be open water on the land side. I also learned the manner in which the fragments of ice are carried down into the sea by the current, under the solid surface. When and how the mouth of the bay was blocked up, is unknown. Probably during a long season of calm weather attended with severe frost, in the middle of winter, the drift ice may have continued stationary at the

mouth of the fiorde, and being exposed in spring to an alternation of thaw and frost, have been consolidated into a mass firm enough to resist the summer's warmth, and the action of the winds and current. The frozen snow, accumulating for ages, has swollen this mass to so huge a bulk, that the narrow arches, through which the stream impetuously rushes, are in many places twenty fathom high. The pieces of ice yearly precipitated from the mountains into the open bay, are hurried down by the stream upon this icy bridge. The smaller fragments float through; the larger dash against it, until they are broken into pieces small enough to pass through also; such is the formation of the *Ice-Blink*. In the same manner may we account for the prodigious quantities of ice driven from the east coast through the frozen Frobisher's Strait. It is observable that the masses which thus force their way into the sea, are not, as usual, smooth and entire, but jagged and fretted into holes, a proof that they have been a long time exposed to mutual attrition in their passage down the stream."

II. To give a better idea of the character of the upper country, I beg leave to subjoin our factor's account of his journey round the *Ice-Blink*, extracted from a work which he published on Greenland manners.

August 28, 1751, I sent the great boat to search for fire-wood, north of the *Ice-Blink*, and followed it in my hunting boat. A Greenlander had, in the preceding month, pursued his game so high into the country, that he could see, as he said, the mountains of the ancient *Kablunaks*, or Europeans. Induced by this intelligence, I determined to seize the present opportunity of attempting a passage to the east-side. On the 2d of September, accompanied by the Greenlander, his daughter, and three other natives, I set out on my tour from a bay to the south of the Ice- Blink. We tied our bag of provisions, and our furs to sleep on together, and gave them to the girl to carry. The rest of us took each his kajak, or small boat, on his head, and his musket on his shoulder, and in this

manner we began our march. The first half mile along a brook-side was level and easy walking. But we had now a high and rugged rock to cross, and frequently fell down with our boats on our heads. By sun-set, we reached a large bay on the other side, fourteen leagues in length, a hard day's pull for an expert rower. In former times, the Greenlanders could row into this bay directly from the sea. The next day, we launched our kajaks, and rowed four miles straight across the bay to the north-side. We there left our boats on land, covered with stones, and pursued our journey on foot to the north-east. Crossing a rock, we came in the evening to firm ice. Early on the 4th, we set out over it, to the nearest mountain of the Ice-Blink, about four miles distant. The road was as level as the streets of Copenhagen. An hour after sun-set, we arrived at the top; there we chased the rein-deers the whole day, and shot one, the raw flesh of which fell to the Greenlanders' share, for there was neither grass nor brushwood to kindle a fire, and I was obliged to be satisfied with a piece of bread and cheese. On the 5th, we travelled about four miles farther to the highest rock on the Ice-Blink; but we were seven hours on the road, as the ice was uneven and full of chasms, which obliged us to make frequent circuits. About eleven o'clock we came to the rock, and after taking an hour's rest began to ascend. Towards four o'clock, we gained the summit spent with fatigue. Here the extensive prospect on all sides struck me with wonder, particularly where the vast field of ice stretched far across the country to the eastern shore, bounded in the distance by mountains, whose tops were covered with snow, like those on which we stood. At first they seemed to be only six or seven leagues distant, but when I looked towards Godhaab, and saw the mountains in its vicinity appear equally large, though at least one hundred miles off, I was obliged to enlarge my estimate. We remained till the evening on the mountain head; then descending a short way, we lay down to rest. But the activity of

my thoughts, aided by the cold, drove away sleep. On the morning of the 6th, we shot a rein-deer close by our resting place. Having tasted nothing warm during five days, I took a large draught of the warm blood, which was very refreshing. The Greenlanders made a hearty breakfast on the raw flesh, and took a haunch along with them. Several urgent reasons now pressed our return, though I would willingly have continued my journey another day, in order to form some conjecture as to the distance of the east coast. But we were almost barefoot, for though each of us had provided himself with two pair of strong boots, they were torn in pieces by the ice and stones, and our Greenland girl could not mend them, having lost her sewing implements.

The following are the principal discoveries I could make of the land towards the east coast. The nearest mountains on that coast lie N. E., or E. N. E., and are smaller than those on the west coast, as may be concluded from the decreased quantity of snow on their summits. The country where the Frobisher's Strait is supposed to lie, appears pretty level, and is constantly covered with ice. I could see only two or three little hills which could be supposed land. To the N. E. and N. W., on the contrary, the rocks jut out above the ice, and some of their eminences are entirely free from snow. I saw, in particular, one long ridge, between two immense rocks, whose bare back appeared, throughout, of the natural colour of earth.

As to the possibility of a journey across the great plain of ice which precludes a communication between the two coasts, the nature of the ground does not present any insuperable obstacles.

The fields of ice are not so dangerous, nor the chasms so deep, as has been supposed. Some of them are hollowed out like valleys; others so narrow that we leaped over them with the help of our guns; and, in general, they are not more than four or five fathoms in depth. It is true that clefts are here and there to be met with, which to all appearance are bottomless, but they are

not long, and may be avoided by an easy circuit. But there are other difficulties which would render an attempt of this nature next to impracticable: no one could take with him a stock of provisions sufficient for such a journey, nor would the intolerable cold of the night's encampment on the bare ice suffer any living creature to draw breath. We took up our night's lodging, not on the ice, but on the ground, and were well provided with furs. I was wrapped in warm rein-deer pelts, and had a foot-bag made of bear's skin, yet scarcely could we sit or lie down for an hour but our limbs were benumbed. In short, during all the winter nights which I have passed in the open air in Greenland, I was never so incommoded by the cold as in this week of September.

The 7th, in the evening, we got back to the fiorde, where we had drawn our kajaks on shore. We crossed it the next morning, and arrived at our tents before night-fall.

III. From what has been said, some idea may be formed, both of the ice covering the land, and that which is driven about in the bays and open sea. It would be out of place here to enter into a discussion concerning its production and dissolution in the sea and rivers. These subjects belong to natural philosophy, and are doubtlessly well known to most of our readers.

We shall only endeavour to show how the enormous mountains and fields of ice, so prevalent in the northern ocean, are formed, and where they originate.

It is a fact, that all those ships which have gone in search of a passage to China, by way of Nova Zembla, or through Davis's Strait, have been foiled in their undertaking by the ice.* The same cause has hitherto prevented the discovery of those unknown regions, supposed to lie near the South Pole. Indeed various mariners have remarked, that it is found in greater quantities in the temperate zone of the southern hemisphere than in the same degree of north lati-

* See Recueil de Voyages au Nord.

tude. In the year 1749, ice was observed in 47° south latitude.

Considerable confusion has arisen in describing the various kinds of ice, from this cause, that the ice-bergs are not distinguished with sufficient accuracy from the flake, or floating ice; and if this be not done, it will be impossible to give any correct notion of the origin of either of these formations.

Ice-bergs are enormous detached masses, driving about in the sea, and exhibiting an endless variety of shapes. Some look like churches or castles adorned with turrets and spires; others like ships in full sail; and so correct is the resemblance, that instances have been known of persons rowing up to them, in order to pilot the imaginary vessels into the harbour.

Others again assume the form of islands, diversified with hill and dale, and often rear their heads more than two hundred yards above the level of the water. Nay I am credibly informed by a missionary, who had lived near the spot, that in Disko Bay two ice-bergs have run a-ground in three hundred fathoms water, and remained stationary for a number of years, one of which the sailors call Haarlem, and the other Amsterdam. It is their custom to moor their vessels to these mountains while they fill their train-barrels on the flat ice.

The material of which these stupendous masses are composed is extremely hard ice, equal in transparency to glass. It is generally of a pale green colour, though some pieces are found sky-blue; but when melted and frozen a second time it becomes white.

Some large pieces have been discovered of a dark grey, or even black colour, and upon being more closely examined, were found to contain earth, stones, and brushwood, which having been washed off the summits of mountains by the rain, were afterwards covered with new ice.

Others again are partially covered with a thick crust of congealed sea-water, probably frozen on their surface, while they lay in shallow water. The upper parts

being afterwards dissolved left the remainder light enough to float with the tide.

Twenty or thirty of these ice-bergs may often be seen after a violent storm chasing each other in and out of Davis's Strait. Some of them frequently run a-ground in the shallow water near the shore, and remain there till softened by the continual washing of the waves, they either fall asunder, or are propelled again to the open sea by the force of the tide and currents. Most of them are at last carried down into the latitude of Newfoundland and Nova Scotia, where they melt under the beams of the sun.

Martens informs us, in his voyage to Spitzbergen, that there are masses of ice at the foot of the mountains which overtop their highest summits. They are of a blue colour, full of fissures and cavities, caused by the rain, and covered with snow, by the melting of which they increase from year to year. The ice of which they are formed is very compact, and moulded into a great variety of pleasing shapes. Some pieces are in the form of spreading trees; and if it happens to snow, the flakes, without any great exertion of the fancy, may be taken for foliage: others look like churches, with their tops adorned with spires, and their sides with pillars and arched windows. When illuminated by the setting sun they make a glorious show, his golden beams being refracted with a blue, but dazzling, light through their numberless pinnacles and towers.

Buffon, in a passage extracted from Wafer's Voyages, says, that pieces of ice have been found in the neighbourhood of Cape Horn, which were taken for islands by the sailors; they were about four or five hundred feet high, and three miles in length. Ellis saw several in Hudson's Bay, from five to six hundred yards in diameter; and Buffon, who measured one of them, found the part which projected out of the water to be one hundred and forty feet in height. From this we may calculate the length and thickness of the entire mass, reckoning the specific gravities of fresh and salt water to be to each other in the ratio of six to seven. Near Nova Zembla ice-islands

have been found, which rose more than two hundred fathoms above the water.

Though it be next to impossible to determine with certainty, in what manner these prodigious ice-bergs are formed, or how they break loose and accumulate, we may arrive at some very probable conjectures on the subject.

Some have imagined that they consisted of salt-water, frozen to the bottom in narrow bays, and afterwards rent from the shores by the force of an inundation in the spring; that they owed their increase to the snow and rain, which freezes as soon as it falls upon them, and were at last driven out into the open sea by a high wind. But actual observation disproves this hypothesis. Even in the narrowest channels and stillest bays, the sea never freezes to a greater depth than a few yards, otherwise the Greenlanders could not fish upon the ice, which is their regular practice.

Moreover, the water of which the ice mountains are composed is not salt, but on the contrary, perfectly fresh; so that we are in a great measure warranted to conclude that, (since only comparatively small quantities can be generated in rivers,) by far the most considerable portion accumulates in the cavities of the rocks and mountains.

The Greenland hills are generally so lofty that the snow on their summits seldom thaws, and what melts in the day-time is congealed during the night. They also abound in deep chasms, into which the sun-beams seldom or never enter. Besides, even in the most precipitous mountains there are occasional flats and hollows, in which the rain and snow-water collects, and is frozen into ice. When the snow rolls down in heaps, or, after having been dissolved by the sun, descends in rivulets and torrents upon the ice already formed in these hollows, the latter gradually accumulates into a solid lump, upon which the action of the sun can make but a very partial impression; and the decrease occasioned by thaw is amply made up by continual accessions from the snow and rain.

These huge lumps of ice sometimes project a considerable way over the edge of the rocks, and do not melt so much on the surface as underneath, bursting in cracks of various dimensions, out of which the water continually oozes. Being in this way gradually undermined to such a degree as to lose their equilibrium, they break loose from the rocks with a tremendous crash, and falling in enormous fragments over the edge of the precipice, plunge into the depth below, with a noise like thunder, and a commotion of the water sufficient to overset a boat at a good distance from the shore.

Many a poor Greenlander sailing unconcernedly in his kajak along the coast, has lost his life by their fall.

When we reflect that these masses of ice sometimes remain fixed in the chasms of the rocks, or frozen fast in the bays, for a number of years together, and are continually increased by the snow-water, (which, as we noticed before, is sometimes mixed with earth and stones,) we shall not have so much reason to wonder at their prodigious magnitude.

Those who have seen the glaciers of Switzerland*, or the Tyrol, or even read descriptions of them, will not be at a loss to conceive how such immense pieces of ice may be loosened from the cavities in which they are formed.

The chasms in them are occasioned by the ice thawing underneath and freezing again during the winter. A large quantity of air is consequently enclosed, which when expanded by the heats of summer, bursts the exterior covering, with a terrible explosion, and a concussion aptly denominated an ice-quake, so vehement that casual passengers are forced to sit down in order not to be thrown off their legs.

On such occasions, not only earth, wood, and stones, but even the bodies of men and animals which had been

* See Grüner's Ice-Mountains of Switzerland, vol. iii.

embosomed in the ice are vomited forth, and large masses roll down into the valleys beneath, frequently covering whole meadows. At Grindelwald, in the canton of Bern, they have within the last sixty years blocked up the road to Viescher Bath in the Vallois, and buried the chapel of St. Petronella, with whole forests of larch-trees, whose highest tops still emerge above the ice.

We may form some conception of the size of these masses from the description of the Rheinwald glacier given by the author before quoted, which at the same time illustrates the nature of the Ice-blink. This glacier is said to be four miles long and two broad, and between several hundred and a thousand fathoms in height. It consists entirely of masses of pure ice, precipitated from the mountains, and ranged side by side in perpendicular columns. Towards the western extremity issues a turbid stream, which soon disappears again under the ice. On the east side, a magnificent cavern opens far into the glacier. The neighbouring villagers say, that four miles from its mouth it is still high enough to admit of a man's standing upright in it. A rivulet of crystal water discharges itself through this channel.

If such stupendous masses are precipitated from the hills of Switzerland, it is little wonder that the arctic seas of Greenland should be crowded with huge mountains of floating ice. The highest summits of the Cordilleras, which lie directly under the Equator, are covered with perpetual ice and snow. It has however been too hastily concluded, that the line of congelation, which in hot climates is 13,380 feet above the level of the sea, gradually lowers itself towards the poles, till, within the polar circle, it coincides with the surface of the earth. Ocular demonstration disproves this. Greenlanders inhabit as far north as 75°, and Europeans have settlements in lat. 71°. I have also observed, that on the highest Greenland mountains, which though not as high as Chimboraço, have yet an elevation of at least

6000 feet, rain is more frequent than snow during the summer months, and even the snow which descends is quickly melted.

The floating ice-bergs make the navigation of Davis's Strait extremely difficult and hazardous; yet as they always occur singly and at considerable distances, they may easily be avoided. If we hear of some few vessels foundering on the ice masses, it is always found that these accidents have happened in a thick fog or a storm, or still more frequently in a dead calm with a violent current. It is necessary however for two men to be on the look-out day and night.

IV. The *flat floating* ice is far more to be dreaded. It generally spreads along the whole coast in one continuous plain from *Staatenhuk* to lat. 65°, and must be carefully coasted by navigators till they can find an opening made by wind or tide where they may run in. This however is not to be done without much danger, as a contrary wind or cross current frequently drives the ice together, crushes the ill-fated vessel, and sinks it to the bottom.

I have not myself ever seen such an ice-field, but by comparing the accounts of our captains with those of Greenlanders who come from a distant part of the east coast, it should appear that these fields are more than four hundred miles long, and in many places between one and two hundred miles in breadth. The pieces lie so thick together, except where the wind and current have made an opening, that it is easy to leap from piece to piece; and the indented margin of one fragment corresponds to that of another, plainly exhibiting the fracture. The thickness of this species of ice is variable, commonly about fifteen or sixteen feet. It is brackish to the taste, being formed of sea water. But large portions of fresh-water ice may be easily recognized in it by their bright transparent colour. These are estimated by Ellis * and Gmelin † to be from four to ten fathoms thick. Detached flakes of fresh-water ice, or several

* Voyage to Hudson's Bay. † Travels in Siberia.

heaped up and frozen together, are sometimes met with. They rise much higher than the circumjacent ice, and often contain a pond of fresh water. The crew of the vessel in which Ellis sailed, filled their casks from such a reservoir. Ice mountains of various dimensions are scattered in the mass, which have been driven up the fissures by the wind and tide, to whose action they are more exposed than the flat ice. With these appendages, an ice-field displays the gorgeous spectacle of a well-peopled region adorned with hills and dales, towns and villages, palaces, citadels, and towers. The air grows sensibly colder in the vicinity of the ice. This circumstance, and the thick low fog which hovers round, are pretty certain indications that it is at no great distance. On the other hand, some navigators in Davis's Straits have remarked, that the fog dissipates as soon as the ships approach the ice, and that towards the north the ice is found in less quantity, consequently accompanied by a warmer atmosphere.

V. None are better acquainted with this packed ice and its attendant dangers, than the Spitzbergen whalers, who are unable at all times to avoid it, and are frequently obliged to venture into the very middle of it. Hoping, therefore, that it will not be unacceptable to the reader, I will extract a few particulars relative to the ice in that sea from Martens' Voyage to Spitzbergen.

In April and May, the ice breaks up and comes in great quantities, partly from Nova Zembla, but principally from the east coast of Greenland. The latter, called the west ice, always arrives in large masses or fields, covered thick with snow.

The ice north of Spitzbergen remains entire after it has broken up from all the neighbouring coasts, a strong argument that there is land nearer to the pole to which this ice may adhere. The larger fields of ice are discovered before they are seen, by a white gleam in the air. It is not smooth and pellucid like that formed from fresh water, but has the appearance of loaf sugar, and the pale green colour of vitriol. When the whalers

are afraid of venturing amongst the small drift ice, they moor the ship to a large field. But this is a perilous situation, for if it should break by the swell of the waves, it flies into a thousand little fragments, which cause a whirlpool in the sea. If the ship is drawn in to the centre, it is lost.

The smaller pieces are more to be feared than the larger masses, as they float much quicker, and, heaped together by the wind and stream, often overtop the ship. Unable to extricate itself from these accumulated fragments, the vessel is thrown on its side, or heaved aloft, or, as frequently happens, dashed to pieces. Many of these whalers are thus destroyed, though they are built much stronger than ordinary vessels. The only resource of the crew in these disasters, is to make their way over the ice, or in a boat, till they are picked up by another vessel.* There is, however, no alternative but to follow the whales into this drift ice, for hither they constantly retire when struck with the harpoon. A piece of ice is on such occasions hung a-stern to retard the motion of the ship, and the ice is kept off with long poles armed with iron. Sometimes a dead whale, or its tail or fins, is suspended from the ship's side, to break the force of the colliding fragments.

VI. But to return to Davis's Strait: the origination of that prodigious continent of ice which occupies it, is a question not easily to be solved, unless we knew more of the Icy ocean. It is evident that it is not formed within the straits, for the sea there is kept in such endless agitation by the winds and tides, that it cannot freeze, even in

* There are very few relations of hardships, dangers, and miraculous escapes, to be read with such a shuddering delight as the Voyage of William Barentz, and Heemskerk, the famous Dutch sea hero, for the discovery of the N. W. passage in the years 1596-7. After wintering on the east side of Nova Zembla, in latitude 76°, they lost their ship in the ice, and sailed many hundred leagues through the ice in an open boat, frequently attacked by the white bears, and sometimes obliged to drag their boat, with its cargo, a long way over the ice. They at length arrived at Kola, in Lapland, where they were taken up by a Dutch vessel. An extract of it may be found in Zorgdraker's Greenland Fishery, p. 167—179.

the bays; and the small quantity of ice that gathers in narrow channels between the islands, in sheltered creeks, or even in Disko Bay itself, soon disappears, and is swept away to the shores of America. The ice-fields come with the current from the east coast of Greenland, but there also, as the natives assert, nothing is seen but loose ice. It must therefore perform a still farther voyage from the Arctic ocean, which is certainly extensive enough to yield more than one such ice-field. But if there were open sea under the Pole it could not be produced even there, since the billows raised by the wind, even in the most northern latitudes, would prevent the water from freezing. Besides, experience teaches, that the cold weather is not so durable in these northern climates as might be imagined from their situation. Where ice shall be generated, land is necessary, to which it may at first attach itself, and so by degrees extend into the sea, though it seldom spreads to any distance. The supposition that there is land under the Pole, where the sea congeals in some mighty bay, and whence the ice is rent in large sheets by the summer's thaw, or the violence of tempests, might appear at first to be the most plausible; but it clashes with certain accounts quoted by Buffon, which, however, seem to be of very doubtful credit. He says that Captain Monson, an Englishman, who went in quest of a north-west passage, came within two degrees of the Pole, and found no ice. A Dutch seaman gave out that he had sailed round the Pole, and found it as warm there as in Amsterdam. And Captain Goulden, an Englishman, assured King Charles II. that two Dutch ships, finding no whales at Spitzbergen, parted company from him, and after an absence of fourteen days returned with the story, which they confirmed from their log-book, that they had sailed as far as 89° without finding ice.

If these accounts are thought of sufficient authority to overturn our first hypothesis, we may suppose that part of the floating mass is ejected from the many large rivers of Siberia, forming the fresh water protuberances. The remaining and larger part may be contributed by

the coasts of Siberia, Nova Zembla, Spitzbergen, and particularly *East Greenland.* After being dislodged from its original site, and tost to and fro by the tides of the ocean, it is caught by the regular east current, which whirls it round Staatenhuk, and possibly also under the frozen ice of Frobisher's Strait, as far as latitude 65° on the west coast; there a contrary current intercepts it, and carries it down to the American shores, till it finally melts away, and disappears under the warmth of a southern sun.*

VII. The small creeks and fiordes, which lie screened by the hills from the wind and stream, are every winter covered with pieces of ice partly salt and partly fresh; these are broken off in spring by the stormy winds, and carried out to sea. The northern arm of *Ball's River* is overspread with these fragments for many leagues, as I myself witnessed. Having occasion to visit the missionary who was busied in the herring fishery, at *Pissiksarbik,* with his Greenland congregation, I sailed four leagues farther, to the mouth of the inlet, which was still locked up in ice. I then landed, and walked up the valley, to see some ruins of the old Norwegians, (situate by the side of a great lake of fresh water,) but all that was now left of these relics was a large square pile of stones, overgrown with grass. Through the middle of the valley, which is about four miles long, flows a rivulet, swelling at intervals into ponds. The adjacent hills do not rise with so large an angle as those by the sea-shore, and are thickly covered with mosses, grass, and underwood. The sun, which is excessively scorching between the hills, soon drove me back again. But as my Greenland boatmen were still busily employed in catching salmon, I went alone up a little hill, from whence I had a view of the northern arm of the bay, covered with ice. Curiosity urged me on across a morass, a mile broad, covered with thick grass, over which the Greenlanders walk with their kajaks on their heads, to the north bay, in pursuit of seals. But as I

* See Note III.

could not yet see the ice in its full extent, I went forward to a rising ground, and there beheld with astonishment, an ice-field, about eight leagues long, and one broad. I could discern no open water between the hills seaward, as far as my sight could penetrate, only the water-fog indicated that the fiorde must be open in that direction (for it was sun-set;) *eastward* the ice-field, consisting of immense masses frozen together, stretched itself in a vast flat two miles long; it then rose to the height of a very lofty tower, filling up the interspace between the hills like a long range of houses, with their pointed gables in front. This I conjectured to be the end of the bay, for from this point the ice ascended in steps between the mountains for the space of four leagues, like the falls of a torrent rushing down a precipitous ravine. A low hill, apparently covered with but little snow, closed the vista, and terminated this extensive plain. Wide tracts of ice, however, branched off north and south, to an unknown distance into the country.

VIII. One who cursorily hears of these frightful drifts of ice, is apt to imagine that the poor natives of East Greenland are blocked up from all foreign communication, and he already shudders while anticipating the same dreadful fate for the west coast. The state of the east coast shall be afterwards inquired into. As far as relates to the west side, this fatality needs not be feared, as long as the course of nature shall remain unaltered. We have only to revert to the origin of this floating ice. It comes with the stream, and by the stream and the wind it is always carried away. When the wind is westerly and stormy it choaks up all the bays, but no sooner does the wind veer to the north or east, than it issues forth with the ebb tide, and follows the current to its highest reach in the north, and then downwards to more southern latitudes. So long, therefore, as the fluxes of the ocean, the winds, and the currents, shall exist, this coast will be alternately bound up, and loosened from its icy fetters. It is true, when the west wind drives in the ice in large quantities, the Greenlanders cannot go out, nor can the ships sail in, so that

the natives must consequently endure many privations; but by the goodness of Divine Providence, this distress is of short duration, and seldom lasts longer than a fortnight.

IX. With these disadvantages, the Author of Nature has combined a signal benefit. Having denied the growth of trees to this cold and rocky land, he has made provision that the streams of the ocean shall bring, along with the ice, large quantities of wood, and deposit them between the islands. Were it not for this, we Europeans should have no fire-wood, and the poor Greenlanders, though they find a substitute for fire-wood in blubber, would have nothing with which they might roof their houses, rear their tents, build their boats, and shaft their arrows, their only means of procuring food and clothing, light and heat. Amongst this wood are found great trees torn up by the roots, which during the driving and dashing of many years among the ice, have been stripped of their bark and branches, and eaten through by the worm. A small part of these debris consists of willows, alders, and birch-trees, from bays in the south; also aspen-trees, which are the production of still more remote climes. The principal components of the mass are, however, pine and fir. There is also great abundance of a fine-grained wood, with few branches, which I conclude to be larch, a tree that loves high stony mountains; and a thick reddish sort, of more agreeable scent than the common fir, with visible cross-veins, which seems to be the same species as the beautiful silver-pine, or *Zirbel*,* which grows on the highest mountains of the Grisons, having the fragrance of cedar, and used by the Swiss for wainscotting.

It is plain that this wood must come from a fertile, but cold and alpine country. It is, however, difficult to decide what country this may be. It cannot be contributed by the adjacent continent of America, because it is generally brought along with the ice by

* Pinus Cembra. This is a different species from the Zirbel-baum of Linnæus, which is the Pinus Pinea.

the current from the east side. Supposing it to come from Canada, and drive with the stream north-east, till it falls into the regular current from Spitzbergen, we might expect to find the oak, a species common to that country, amongst the drifts. But oak is never met with, except in fragments of ship timber. Ellis, who also met with this drift-wood in Hudson's Bay, mentions, that some assign Norway as its native place. But he is of opinion, that the strong north-west winds would prevent its passage thence, as the violent currents which run southward from Greenland, obstruct the way from the American shores. He supposes it, therefore, to be swept by the stream from the south-coast of Greenland, founding his opinion upon a misapprehension of Mr. Egede's account. The latter, indeed, speaks of birches and alders, the thickness of a man's thigh; but pines, which are found in the drift-wood, as big as the mast of a ship, do not grow in this country.

This singular subject merits some investigation. The fact that it is brought along with the ice and the current, is incontrovertible. It is found more plentifully on the coasts of Iceland, and on the south-east side of Jan Mayen's Island, in 75°, there are two bays, where so much wood drives in with the ice, that a ship may be loaded from it. This is a plain proof that it must come from a still greater distance towards the Pole or the east. If there were any land under the Pole, wood could as little grow there as in Greenland. It must then be washed down from the mountains of Siberia, by the swollen torrents of that wild region, which precipitate whole tracts of land, and rocks, with their forests, into the mighty rivers, and carry them out to sea. Here it is borne along with the ice, by the eastward current, towards the Pole. Then following the stream between Spitzbergen and Greenland, it doubles Cape Farewell, ascending up Davis's Strait as high as Disko Bay. Beyond this point, where the impulse of the current is lost in a stronger tide to the south-west, no drift-wood is ever found. The few relics which are not intercepted by the gulfs and inlets of West Greenland, float down to America.

The Russian vessel, which set out in 1735, by order of the emperor from the river Lena to Kamtchatka, for the discovery of the north-west passage, fell in, at its winter station, with a quantity of large drift-wood, with which the crew built themselves a house. Gmelin remarks on this circumstance, that "no forests are seen within two hundred wersts of the Icy ocean, yet the shore is covered with abundance of wood, which is drifted here from other countries, so that in many places it is heaped up in layers, mountain high. It consists entirely of larch and fir-trees."* According to his account, huge piles of drifted larch, cedar, and fir, are found on the sea-shore, between the mouths of the Obe and Jenisei. The freshest pieces lie close to the shore; dry and rotted trunks are found farther up in the country. Now though no oak or beech grows on the banks of the Obe, on the Oural chain, or indeed in almost any part of Siberia, yet the pine and the Siberian cedar, which answers to the description of the above-mentioned Zirbel, are produced in vast abundance. Thus a considerable part, at least, of this floating timber may be conveyed down these large streams into the ocean. And, if, according to the same author, no drift-wood is found between the Jenisei and Lena, though to the east of the latter river it lines the coast for many leagues, and the shallow and inconsiderable rivers of that country are utterly incapable of supplying it; we must trace this part of the mass to a still more remote origin. In Kamtchatka, the debris of fir-trees are found, though not a tree grows in the country. The inhabitants say, that they are brought by the east-wind over the sea, probably therefore from the opposite continent of America.† So that we may conclude, as the motion of the great body of water on the globe, with its main currents, is from east to west, that these debris are brought from the west-coast of America, through Behring's Strait to the Lena, whence

* Travels in Siberia, Part II. p. 415.

† Müller's Collection of Russian Voyages, Vol. III. The Kamtchadales fish up great balks between the islands, which they use to prop up their clay houses.

a part travels on towards the Pole till it arrives at Greenland and Spitzbergen.

X. Having been so long detained by the natural wonders of this singular country, we shall the more briefly dispatch those features of its geography which are less peculiarly its own.

The Flood-tide, to which the current owes its force, and which drives in the wood and ice between the islands, retires every six hours with the ebb, according to the moon's motion, as regularly as in other parts of the world. It flows from south to north, and its average rise at high water mark is, at the South Cape three fathoms, in Ball's River two*, and in Disko one fathom, decreasing gradually towards the north, till it does not much exceed a foot. During the spring tides however, it rises in Ball's River more than three fathoms. With the flow of the tide the wind, if there is any, gains strength, and three days before and after the spring tides, especially at the equinoxes, stormy weather is expected, which does not however always happen. The compass varies about two points and a half towards the west. At the northern extremity of the Strait, it is said to vary five points or fifty-six degrees, which is the greatest declination that has ever been observed.† It is remarkable that the water in wells and springs on the land, rises and sinks with the tide: particularly in winter, when all is covered with ice and snow, new and copious fountains will gush forth during a spring tide, in places which had else no water, and which are elevated far above the level of the sea.

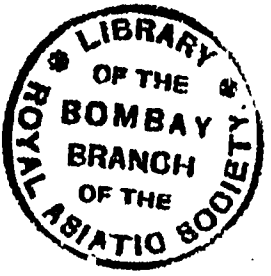
The land in general is not so well watered as the mountainous regions of warmer countries. The most pure and wholesome springs have no other supply than the melted snow which filtrates through the earth. Here and there in the valleys are small lakes fed by the ice and snow, which dissolve and run down the

* A surgeon of the name of Brasen, a friend of Cranta's, estimates the rise of the tide in Ball's River at three fathoms.

† Capt. Muirhead, of the Larkins of Leith, states the variation in latitude 75°, to be no less than 8 points, 90°. *Quart. Rev.*

gutters of the mountains. The salmon brooks, *elves*, or mountain streams, are not numerous, nor are they so rapid as the torrents of the Swiss Alps. No large rivers can be formed in this country. The valleys are small, for the mountains rise up abruptly from the plain, and are covered with perpetual ice, which melts only in very small quantities, and consequently affords but a scanty supply to the fountains.

Many springs in summer are dried up, and in winter they are mostly frozen to the bottom. Men and beasts would then die of thirst had not a wise Providence ordained, that intervals of thaw and rain should occur in the severest winter, when the snow water filtrates into ponds under the ice.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CHAPTER III.

Of the Air and Seasons. — I. Cold in Winter, and Frost-smoke. — II. Of the Summer. Heat alternating with cold and mist. — III. Healthy climate; rains, winds, hurricanes, and earthquakes. — IV. Length of day and night. Aurora Borealis and other aërial Phenomena. — V. Observations of the weather from Aug. 1761 *to Aug.* 1762.

I. It may easily be imagined, that in a country covered in most places with everlasting ice and snow, the cold must be extreme. It is however bearable as long as the sun shines one or two hours daily. But when he never rises at all for a length of time, the cups during tea have often been known to freeze to the table, and even ardent spirits have been frozen in a room containing fire.

Mr. Paul Egede, in his journal under Jan. 7th, 1738, mentions the following surprising effects of the cold near Disko. "The ice and hoar frost," he says, "extended down the chimney as far as the stove's mouth, without being thawed by the fire during the day. The top of the chimney was capped with ice, through which the smoke issued out of several small holes. The door and walls of the room were, as it were, enamelled with frost, and what is still more incredible, two under-beds were frozen to the bed-steads. Linen was frozen in the drawers, and an upper-bed of eyder-down, with pillows of the same, were quite stiff, and covered an inch thick with hoar-frost, from the congelation of the breath. Beef could not be got out of the barrels, without hewing them in pieces. When thawed in snow-water, and placed over the fire in a kettle, its outside was boiled sufficiently, before the inside could be pierced with a knife." In Hudson's Bay, lat. 57°, where Ellis wintered in 1746, the sea was covered with ice on the 8th

of October. Ink froze by the fire-side, and beer in bottles wrapped with tow. All sorts of ardent spirits were congealed, and burst the bottles. Even strong spirits of wine coagulated like frozen oil. The damp stood like snow upon the furniture of the room, and the bed-clothes adhered to the wall. It was however remarked, that this intense cold seldom lasted for more than four or five days together, without being interrupted by a thaw.

The strongest frost sets in, as in our climate, about new-year, and in February and March is so intense, that stones are split, and the sea smokes like an oven, particularly in the bays. This is called the *frost-smoke*. Those who sail out into it perceive a dampness in the air, but not that burning cold which is felt in a dry atmosphere; although their hair and clothes are stiffened with rime and ice. This frost-smoke is exceedingly apt to raise blisters on the skin, and when the air is sufficiently cold, congeals into minute pellicles of ice which are driven before the wind, and cause such a piercing cold on shore, that it is scarcely possible to stir out of doors, without having one's face and hands frozen. When water is placed over the fire to boil, it freezes before the heat can get the upper-hand. At such times, the sea between the islands, and in the narrow creeks and fiordes is ice-locked, and the Greenlanders are in imminent danger of starvation, not being able to go in quest of their sustenance for the cold and ice.

II. The summer may be said to begin with May and end with September, as during these and the intermediate months the Greenlanders encamp in tents. But the earth is not properly thawed before June, and even then to no great depth. Snow also continues to fall in this month, and recommences in August, although it does not lie long till October. Many have remarked, that less quantities fall here than in Norway; and it is a fact, that during the winter I spent in Greenland, which indeed was unusually mild, the snow seldom exceeded a few inches in depth, except when it was drifted into heaps, and never remained long on the ground. It

must therefore either be melted by the sun, or blown into the sea by the wind; in the latter case the air is filled with innumerable snowy atoms, so penetrating, that it is hazardous to venture out of doors. We ought, however, to notice that the ground is frequently covered from September to June, in many places with drifts twelve fathoms in depth, but rendered so compact by the frost, that there is no danger in walking out on them in snow-shoes.

In the long summer days, particularly in bays and valleys, where the sun-beams concentrate, and the fogs and winds of the ocean are excluded, it is often frequently needful to pull off part of the dress; and the water left in the clefts of rocks by the tide is reduced to a beautiful white salt. Even in the open sea, when the weather is calm and clear, the sun has power to melt the pitch on the sides of vessels. But there is never an uninterrupted enjoyment of the warmth; the evening breeze is so chilled from passing over immense fields of ice, that the tent is a welcome retreat, and a double covering offers barely sufficient for a protection against cold. Besides, fogs prevail almost every day from April till August on the sea-shore, and are frequently so dense, that it is impossible to see more than a few yards forward. They are often very low, so as to be scarcely distinguishable from the water; and then the upper regions of the atmosphere are always remarkably clear. The fine weather is most durable in autumn, but even then it never lasts long; and there is a constant alternation of heat in the day, and frost in the night.

When the mist is converted into hoar frost by the cold, subtile ice-globules may be seen, like as many shining atoms, floating in the sun-beams, especially where they stream through the shade; and frequently overspread the water with a covering like a spider's web, or a thin sheet of ice.

It has sometimes been remarked, that the weather in Greenland is exactly the reverse of what it is in Europe, so that when the winter is unusually severe in the temperate zones, it is there proportionably

mild, and the converse. This observation will doubtless not always hold good: Yet it is noticed in Mr. Egede's journal, as something remarkable, that in the well-known cold winter of 1739 the air was so mild about Disko-bay, that the wild-geese flocked thither in January; and the bay which is generally frozen from October till May, was quite clear of ice in March. Also the sun, which in the latitude of Disko makes his welcome re-appearance soon after new year, was not visible in the heavens, though they were often cloudless, till February. The cause assigned for both these phenomena by Mr. Egede, was the warm yet imperceptible exhalations driven northward by the rigorous weather in milder climates.

In the Vice-chancellor Pontoppidan's Natural History of Norway, we find it remarked, that in the severe winters of 1709 and 1710, swans were seen there for the first time. "In these years," he writes, "the cold was so intense in France, that centinels were frozen to death at their posts, and the birds fell down dead while flying in the air.—Yet, though the Baltic was covered with such a firm coat of ice, that it became a complete thoroughfare between Copenhagen and Dantzic, the sea along the shores of Norway, and in the harbour of Bergen, was entirely free from it. Various species of water-fowls then visited us, which we had never seen before. The impulse of Divine Providence, contrary to the opinions of philosophers, had directed them to seek that water on our coasts, which was denied them by the south."

By accounts from Greenland, we learn that the winter of 1763, which was uncommonly severe throughout the whole of Europe, was so mild there, that the air often felt colder in the middle of summer.

III. The air of Greenland is pure, light, and not unfavourable to the health of those who are careful to put on warm clothing, live temperately, and take regular exercise. The most common disorders in the country, are scurvy, fistula, and oppression on the breast and eye-lids, caused partly by the oily diet of

the Greenlanders, partly by the cold and the whiteness of the snow. Other diseases, so rife in Europe, are seldom heard of.

We may mention in favour of the climate, that the first German missionaries, who spent a period of thirty years in Greenland, exposed to numberless deprivations and all kinds of hardships, remained sound and healthy, with the exception of accidents; while the mortality among their fellow-labourers in warmer regions was so great. The cold is indeed severe and lasting, but for this there is a remedy. When the missionaries pay a visit to Germany, they suffer more from the excessive heats of summer, and the misty, damp, and changeable weather in winter, than from the clear and constant frosts of Greenland.

Lasting rains are very unfrequent, especially in Disko, where the weather generally continues dry throughout the whole summer. Hail is still more rare. Though the winds are variable, as in other climates, yet they most frequently blow from the land, and are neither so stormy nor so cold as has been generally imagined, but frequently accompany the warmest and most pleasant weather. Yet when storms do arise, which usually happens in autumn, they rage with such fury that the houses crack and tremble, tents and light boats are blown into the air, and the sea water is showered over the land like drizzling rain. If the Greenlanders' account be true, stones of two pounds weight are torn loose and driven about in the air; and those who go out to bring the boats under cover, are forced to creep on their bellies, in order not to be thrown down by the tempest. Whirlwinds sometimes arise in summer, which raise the water of the sea to a great height, and often whirl boats round in an eddy till they are sunk and lost.

The most numerous and violent of these tremendous hurricanes blow from the south, and are generally succeeded by clear weather, after tearing off the ice from the shores of bays, and driving it out in vast heaps to the ocean. It is generally considered a prognostic of

an approaching storm, if the moon be surrounded with an halo, or the evening sky painted with various colours.

Thunder-clouds sometimes gather and emit flashes of lightning without any explosion.—If any thing like a peal of thunder is heard, it cannot be readily ascertained whether it be not the crash of rocks in masses falling from the mountains. During the last thirty years only one slight shock of an earthquake has been felt. The Greenlanders know nothing of volcanoes, though they are found in Iceland. Indeed no traces whatever of sulphur have been seen in the country.

IV. Above the 66th deg. of N. lat. the sun never sets for sometime before and after midsummer, and at Godhaab, in lat. 64° it goes down about twenty minutes past ten, and rises again at fifty minutes past one, being only two hours and forty minutes under the horizon.* In June and July it is so light during the night, that one may transact all kinds of business, and even read or write the most diminutive hand without a candle. In the same months the mountain tops are continually gilded by the sunbeams. This is a great blessing both for the Greenlanders, who in the summer-time can hunt and fish throughout the whole night, and also for sailors, who would otherwise run greater risks from the ice. During the period in which the sun never sets, he ceases to dazzle a few hours afternoon, and is entirely shorn of his beams, appearing in clear weather, only like a full moon, which the eye may inspect with impunity.

The winter nights, on the contrary, are proportionally long, and in Disko-Bay, the sun never rises from the 30th of November till the 12th of January. The inhabitants then enjoy only a clear twilight, produced by the reflection of the sun's rays from the cold, dense atmosphere, and the icy summits of the mountains. In Greenland, consequently, it is never

* In the shortest days the moon never sets; on the contrary it is seldom seen in summer, and the stars are never visible at all from May till August.

so pitch dark as in more southern regions. The light of the moon and stars, shining through the clear, cold air, is so brightly reflected by the snow and ice, that common-sized writing may be read at all times of the night; and when there is no moon, her loss is more than compensated by the brilliant corruscations of the Aurora Borealis, which illuminate the heavens with a beautifully variegated light.* We shall not now attempt to investigate the causes of this wonderful phenomenon, but only remark, that not even the oldest inhabitants of Greenland have ever seen it rise either in the N. or N. West. It is indeed sometimes harbingered by a faint blue light in these quarters, but this is probably nothing more than the reflection of the sun's rays. The genuine Northern lights always spring up either in the East or S. East, and then spread themselves over the whole sky, often flashing from all corners of the firmament at once. I never heard of any remarkable consequences of these lights, except that when steady and motionless, they prognosticate mild weather; but when, as is often the case, they look red, are all in motion, and shoot in all directions with surprising velocity, a stormy season is at hand. †

Of late years, balls of fire have been seen in winter falling through the air. Without mentioning rainbows, shooting stars, and other common phenomena, it has been observed that *Parhelia* or mock-suns, and luminous circles round the moon, are much more frequent in Greenland than in Europe. They are caused by the frost-smoke, and are seen even when the atmosphere is apparently clear. On my voyage back from Greenland, I saw a rainbow which did not consist of the usual colours, but was quite white, with the exception of a stripe of pale grey in the middle. It appeared during squally weather with hail. Martens saw the same kind of rainbow in Spitzbergen. But I was most agreeably surprised and entertained, when on a clear, warm summer's day, the *Kookörnen*, a group of islands about three

* See Note IV.

† The observations made in temperate climates are just the reverse.

leagues from Godhaab, assumed quite a different aspect from what they generally wore. They appeared at first much magnified, as if seen through a telescope, so that the rocks and chasms filled with ice, might be plainly distinguished. After some time all the islets seemed connected together in the shape of a wood, or tall hawthorn fence; then the scene shifting once more, a new and pleasing display of ships in full sail with flying colours, mountain castles with ruined turrets, storks' nests, and numberless other objects rose to view, which after deluding the eye for a short time with their fanciful imagery, all either rose aloft, or receded in the distance, till they vanished out of sight. The atmosphere was all the time calm and clear, with the exception of a thin haze, such as accompanies very hot weather. This haze, (placed at a proper distance from the eye,) may possibly have acted as a convex lens, to magnify the objects situated beyond it. A gentle west-wind with a visible fog, generally puts an end to these lusus naturæ, about two hours after their commencement. *

V. The following observations of the weather from August 1761 to August 1762, may not be unacceptable to the curious. They will recollect that the weather was throughout very mild and changeable.

In August, warm sunshine, with mist and rain from the South. Towards the end of the month, hoar-frost, and ice on fresh water; snow and cold rain.

In the beginning of September, N. E. wind, and warm sunshine, with ice an inch thick in the shade. Afterwards south-wind, with an uncommon continuance of warm weather. The wind then changed to the S. W. with much rain. Lastly, a tempest from the S. and N.

* I have observed something of the same kind near Bern and Neufchatel, in the Glaciers, which lie towards the South. When they appear nearer, plainer, and larger than usual, the peasant reckons upon a speedy change of weather, which generally takes place on the following day. And the Tartars at the mouth of the river Jenisei in Siberia, consider it ominous of a storm, when the islands exceed their common apparent sizes. Gmelin's Voyage, Vol. iii. p. 129.

In October N. E. wind with snow, which lay a few days. Then a storm from the N. E. and frost. Finally, snow three inches thick, which remained on the ground, with stormy S. winds.

In the beginning of November, there was unusually keen frost from the N. E., so that ardent spirits and water near the fire were frozen. Vast quantities of ice were frozen fast in the bays. Yet the sun during the day melted all the snow which fell in the last month. Afterwards there was a S. W. storm and snow-dust. Then thaw-weather, rain, snow, and finally a S. storm.

In December, it snowed very much. Then followed as severe cold as can be recollected in Greenland; but it soon changed into fine, mild weather, with the wind at S. W.

January began with a hard frost, accompanied by high winds from the N. and N. E. which tore off many large pieces of ice from the upper part of the bay, and drove them out to sea. There were afterwards alternately snow and clear frost.

The beginning of February was like that of January. Then rain and smooth ice, with mild weather and little snow. This was succeeded by rain from the E. and S. The last days of the month were alternately frosty and rainy.

In March, the weather was throughout warmer and milder than is usual in Germany during this month, with South, E. and N. E. winds. A cold April was expected, and owing to the prevailing S. and E. winds much driving ice.

The beginning of April was very cold with a N. E. wind. Afterwards the weather became more mild with the wind in the S.; but towards the end of the month, the frost was again very severe and lasting, till it broke up with a warm E. wind.

In May, thaw-weather with intervals of frost, and much snow. Afterwards hot days and cold nights; and finally rain. The beginning of June was warm, and the earth was thawed to a considerable depth. The gardens were sown. But afterwards came snow with a tempestuous S. W. wind; succeeded by agreeable sum-

mer-weather, with the wind in the N. E.; and lastly, much mist and rain from the S. W.

The first days of July were rainy; then a long continuance of fine warm weather, and often great heat with S. and E. winds. Air generally calm.

It may here be noticed, that in this part of the world, calms are often very lasting. This is the more perceptible as we advance farther north. The winds in Greenland are as variable as elsewhere; a smart breeze frequently blows between the islands, when out at sea there is no wind at all; and the contrary. In summer fine weather is generally accompanied with land-winds.

Frequently in the severest winters, mild S. winds blow for a short time, bringing abundance of rain. This is particularly the case in Disko, and still farther north. The same has been remarked in Finland and Lapland, and the transient heat is a great relief both to men and animals in these frigid climes, as it produces a sufficiency of snow-water for their drink. However the melted snow freezes the more easily in the cold nights. In Disko, a calm frequently lasts for three months, but is generally followed by a violent tempest from the S. which tears up the ice on the water and the summits of mountains. It is highly probable, that under the pole there is scarcely any wind at all.*

* See Note V.

CHAPTER IV.

Rocks and Minerals.—I. *Larger and smaller Hills.*—II. *Various Kinds of Minerals*—*Asbestus*—*Weichstein.*—III. *Coals, Marcasites, Ores, and petrified Substances.*—IV. *Different Soils*—*Turf.*

I. The mountains of this country cannot be made the subject of a strict and scientific analysis, as no mines have yet penetrated their recesses, nor any researches explored their natural cavities. We must therefore draw our conclusions from their external figure, and the dismembered fragments of rock which are precipitated from their summits. The hills are of very different elevations; their *highest* pinnacles do not, in my judgment, equal the mountains of Switzerland. Indeed it is an old observation, that the mountains near the equator are higher than those towards the Pole. But they are much steeper and more pointed than the Swiss Alps, and on that account covered with less snow, especially on the south side. They all appear to be composed of a hard rock of light grey colour, without stratification. They have however many spacious caverns or clefts filled with ice. The *secondary* hills which lie in long and broad ridges, are constantly covered with snow. Huge fragments of stone fall down from them at intervals, as well as from the steeper rocks, shivering in their descent into many smaller pieces, so that the foot of the mountain presents the appearance of a city in ruins. The structure and contents of the hills might be ascertained from these shattered masses, were access to them more practicable; but the excessive fatigue of toiling through them, immediately brings on a violent perspiration, even in the most intense cold; be-

sides that no one is safe a moment from a new fall of stones. The *smaller* hills or rocks have suffered still more from this decomposing process; many of them have mouldered away under the hand of time, and are completely pulverized by the action of a moist atmosphere. These latter rocks are for the most part of a dark grey and brown colour, and their fractures exhibit indications of different metals. The cliffs on the sea shore and the islands, are commonly composed of harder substances than the preceding, and, by the constant washing and beating of the waves, are either rendered as smooth and solid as marble, or hollowed out into long deep cavities.

Most of the rocks are full of fissures, more so than I have noticed in other alpine districts. These are however seldom wider than half a yard, and generally run in a perpendicular direction. They are filled with spat, quartz, garnets, selenite, and other minerals. Few only of the rocks lie in strata, and those are not horizontal but sloping.

II. The rocks are in general composed of the same hard granite which constitutes the highest peaks of the Alps. It is of a light grey colour, compacted of feldspar, mica and granular quartz, and contains beds of siliceous sandstone, of the same kind as the freestone used for building in other countries. Fine whetstones are found in it, of a red and yellow colour; they are sometimes called oil-stones. In a coarse black species of this stone, which emits twinkling rays, and is of a slaty structure, small cubic crystals of bright garnet are imbedded. The Greenlanders bring from the south a fine red grit with circular spots of white, which they use for a whetstone. The ruins of a church built of this kind of stone are still extant there, and the floor is paved with large slabs of it. It admits of a polish like that of coarse grained marble. Flints are as rare here as in Norway; all that are required must be brought from Europe. Nor did I see more than one pale agate.*

* See Note VI.

A coarse kind of calcareous marble is found by the sea-shore, of various hues; the reigning colours, however, are white and black, with intersecting veins. The strand is strewed with rolled pieces of red marble, diversified with veins of white, green, and other colours, which have acquired such a polish by the washing of the surge, that they are not much inferior to the best marbles of Italy.

The proper clay or roof-slate is quite unknown in this country, though sometimes large beds of a fine dark grey stone occur, which fall into square pieces by a blow, or by the attrition of the waves. They may perhaps be spat; they are generally to be met with in the clefts of the rocks, are of various hues, and frequently semi-transparent. The Greenlanders have brought us from the south as curiosities, large specimens of a white semi-transparent stone, which breaks like spat, and is so soft, that it may be cut with the knife or even bitten by the teeth; together with white alabaster, which however does not shine, nor take a polish, and falls, when cut, into a fine powder.

Several minerals are found which will withstand the fire, as *Mica* or *Glimmer*, and white, black, and grey isinglass stone, which does not however occur in plates large enough for windows, as in Russia.

I have not met with any real talc or serpentine. But in many places, particularly in Ball's River, are quarries of *Weichstein* or soft stone, (ollaris*,) which from its veins some call bastard marble. It lies in large strata between the rocks. Its rough shell generally consists of grey mica, and a glass-like sort of Amiantus. The common sort of Weichstein is opaque, and of an ash-grey or marble yellow colour.† There is a superior

* Lebetum, Lavetsch stone, the *Lapis Comensis* of Pliny. "Lapis qui cavatur tornaturque in Vasa coquendis cibis utilia, vel ad esculentorum usus, quod in Comensi Italiæ lapide viridi accidere scimus. Sed in Siphnis singulare, quod excalefactus oleo nigrescit, durescitque, natura mollissimus." Plin. Hist. Nat. L. XXIII. C. 22.

† A small porringer, which I have seen, made of Labrador Weichstein, perfectly answers this description. It is of a slate grey colour.

kind, green and transparent, which is often streaked with veins of red and yellow. The veins are in general not transparent. Specimens perfectly white are said to have been found, and white spotted with black. It is not composed of sand, but of the finest viscous clay, which pulverizes in grinding. It is so soft that it yields to friction or to the knife without resistance; but it is at the same time compact and heavy. It has not a slaty structure, and it is difficult to detach a specimen without crumbling it. This stone is both cut and turned with more facility than wood. It is soft and unctuous to the touch, like soap or talc, and when rubbed with oil, takes a beautiful marble polish. I have not observed that the Greenland Weichstein loses its polish or becomes porous when exposed to the air, and the action of the fire only hardens it. The natives make their kettles and lamps of it, and hold it in great estimation. Vessels made of this stone do not, like our iron and copper utensils, impart any taint to the food, so that they are exported in small parcels to Denmark, and are in great request there among opulent families. The best and most durable crucibles are those composed of this stone. For my own part, I do not hesitate to give it a decided preference for every useful purpose to the Lavetsch stone of Chiavenna near Lake Como, which has obtained such high repute throughout Italy.*

The *Amiantus, Asbestus*, or Cotton-stone, are frequent in several of the mountains.—Coarse, ash-coloured veins of these minerals occur in the Weichstein itself, with green, vitreous radii shooting transversely across. The proper Asbestus has the appearance of putrid wood, is of a light grey colour, with a greenish or reddish tinge,

* "These Lavetsch stones are hewn out of the rock in semi-cylindrical masses. One end is smeared with pitch, and fastened to a board on a lathe turned by a water-wheel. It is first worked with straight tools, afterwards with tools increasing in curvature, so that five or six vessels may be made out of one piece. An iron ring is fixed to the rim of each to hang it over the fire. The former town of Plürs yearly gained 60,000 ducats from the sale of these vessels. Meat is sooner and better cooked in them than in metal, and preserves its natural taste." *Scheuchzer's Natural History of Switzerland, P. I.* 379.

and has long fibres, with joints or fractures at the distance of every two or three inches. The broken sections are hard and smooth, like whetstone, but on friction or a heavy blow, it falls into many thin white fibres. If this stone is bruised, and cleansed by repeated washings in warm water from the calcareous particles which gives it its stony consistence, then dried upon a sieve, and dressed with a clothier's comb like wool or flax, yarn and linen may be produced, which is incombustible, and is purified by the fire instead of by washing. In shrouds of this kind of linen, the ancients wrapt up and burnt or buried their dead. In Siberia and among the Pyrenees, purses and other trinkets are made from this stone. The Asbestus linen may be manufactured into paper. The purified fibres may also be employed as a wick for lamps. But it is not to be supposed that the Greenlanders have all this ingenuity. They merely use splinters of it dipped in oil, as matches or chips, to light their lamps and keep the wick in order.

The country abounds in several kinds of beautiful siliceous gems. They are both opaque and transparent, and of different colours. A beautiful yellow jasper, cut and polished, and a rough red specimen of the same stone with white transparent veins, have come into my possession.*

Quartz and crystals occur in considerable pieces. Yellow and dark-coloured crystals of topaz are found, which like the opal give a blue and yellow lustre, according as they are wrought.

The Greenland garnet is also to be ranked among the quartzose gems, since it is found in the highest clefts of the rocks, and breaks into unequal pieces. But it is of so bright and transparent a blood-red colour, sometimes inclining to violet, and so hard, that stone-cutters consider it as a kind of ruby. It is however of such a brittle nature, that pieces can seldom be cut larger than a small bean.

* A friend of the author's purchased two harpoons, the one headed with a broad plate of crystal, similar in shape to the sacrificial knife of the ancients; the other of jasper, slender and pointed.

I procured several specimens of bright hexagonal crystals of a steel colour, which were joined together and had smaller ones growing out of them. Also a white one with red-coloured rays. The Greenlanders likewise brought me a stone, whose broad laminæ resembled porcelain in thinness and transparency. Every two plates were glued together by a reddish cement, and they would strike fire.

There are pretty evident traces of minerals and metals concealed in the mountains; but it has as yet been impossible to make any accurate search. There were at one time a scientific physician, and a person well skilled in mining, in this country, but the nature of their discoveries, if they made any, has hitherto remained unknown. If metals should even be discovered, they could be of very little advantage in a country where wood is so scarce, and they would not repay the expense of exportation. Salt, nitre, alum, and vitriol, have not occurred to me. The Greenlanders however say that there is a green substance found on the banks of a spring in the south, which they use medicinally for an eruptive disorder, and for purifying their furs from any infectious matter.

III. But few sulphureous minerals are seen here. There is a sort of coal found at Disko, but it burns badly, and emits disagreeable fumes. Marcasites are met with in several places; they look like brass, and are so hard that they strike fire with steel. They commonly occur in flat squares cohering together; but they are sometimes met with in pyramidal crystals.

There is abundance of iron stone and ore. The rocks in some instances present a blue and green fracture, and probably contain copper. I have observed in a dark grey rock of a fine grain, shining excrescences of a brimstone colour. The gravel in the neighbourhood was reddish. Veins of sulphurated molybdenum sometimes run through the Weichstein, which are partly solid, and partly shale into thin plates.

The Greenlanders occasionally bring pieces of a metallic substance, which are very heavy and glittering.

Some have thought them to be real ore, but they have been assayed and proved to be nothing but coarse bell-metal. They are probably the fragments of the bells which the old Norwegians used in their churches.

I never myself discovered any petrifactions, except one piece of indurated clay which was shaped like a flat button, but towards the end of my stay in Greenland, I was informed by the natives, that in a distant part of the country, several petrified fishes had been found. I was shewn a broken piece of a petrifaction that resembled a fish's tail. It was a greenish stone, with a hard iron coloured coating. This shell had a crust, which might be scraped off with the knife. It was covered with lines crossing each other at right angles, and with small lentile-shaped wens. Another specimen exactly resembled an egg in shape and colour. It had the same composition as the preceding, and was as hard and heavy as iron.

Pumice stone is very rare here, as the country is not volcanic. White, grey, and particularly black pieces of this stone are however found, which are probably carried hither by the sea from Iceland.

IV. The soils of this country afford little scope for description. They are in general extremely scanty and shallow. The country round Godhaab principally consists of clay, sand, or turf. The clay is pale blue, and very sandy and sterile. In other tracts a light grey marl prevails, which is intermixed with mica, and stands the fire. There is also found a very fine and light micaceous sand, greasy to the touch, and a fine white pearl sand filled with black and red crystals of garnet, and uncommonly hard. Most of the sand in the country is grey or brown and full of stones: when manured, it will support vegetation.

Turf is found in all the marshes, mixed with black mould, sand, and gravel, and is not good for firing. The proper turf is an aggregate of vegetable matter, as roots, withered mosses, grass, putrid wood, and also bones; and is found in low lands, on a bed of sand or on the solid rock. A kind of shell fish are sprinkled amongst

its layers, not met with any where else in the country, so that we may suppose they have been deposited by some former inundation of the sea. This turf-ground probably owes its formation to light earth and grass washed off by the rain from the adjacent mountains. The best sort grows on the highest ridges of the little desert islands and bare cliffs, where a multitude of birds make their roost in the night and deposit their eggs. Their ordure mixed with earth blown thither by the wind furnishes a soil for moss and grass, which augmented by feathers, muscles, and bones, easily discernible in the mass, form a tenacious covering of turf, two or three feet thick. This overspreads the summits of the rocks, and has buried a stone beacon erected by the sailors of former times. It is called *kupp-turf*. Owing to the tough roots it contains, it is difficult to cut through it, but it burns with a bright flame, and gives out a considerable heat.

CHAPTER V.

Vegetable Productions. — I. *General Appearance of Vegetation.* — II. *Remarkable Plants.* — III. *Grasses, Garden-herbs, and Mosses.* — IV. *Shrubby Plants.* — V. *Sea-weed.*

I. The Greenlandic Flora does not belie the general face of nature in this polar region. It is, as might be expected, dwarfed and stunted, the last scattered sprinklings of a vegetation soon to die away in total sterility. The valleys in general produce nothing but mosses and sour moor-grass. A few herbs, bilberry bushes, and other shrubs vegetate on the low cliffs which are covered with thin patches of sand and earth, and on the desert islands, manured by the excrement of the fowls which resort thither. Every thing however is dwarfed by the dryness of the soil and the cold air. In the neighbourhood of Greenland houses and encampments alone, where the soil, however barren, has been dunged for years by the blood and blubber of seals, plants of every kind flower most copiously, and grow to a large height. Yet very few equal those of Europe in luxuriance, and the time of flowering is commonly a month later.

II. It may not be unacceptable to the reader, if we briefly notice a few of the indigenous plants of this country, many of which are not common elsewhere.* A considerable number no doubt have hitherto escaped observation, and the vegetable productions of the south coast in particular have hitherto been little explored.

Angelica archangelica grows in moist places in the narrow dales. It shoots up very abundantly in warm situations with a high and strong stalk. The Norwe-

* For a more complete list see Note VII.

gians call it *Quanne*, and as the Greenland appellation, *Quannek*, is almost exactly the same, it is supposed that they derived this and a few other words from the old Norwegian colonists. They consider the inner part of the root and stalk of this plant as a great delicacy. It has a much better flavour than that which grows in warmer countries, a circumstance common to all edible plants.

The Mountain Sorrel, *Rumex digynus*, with dark green leaves, resembling those of the scurvy-grass, grows here copiously. The flower-spike is two feet long, the whole plant rising three feet from the ground. It is found on fragments of rock and ruined buildings. The Greenlanders, who use but few herbs for eating, owing to their extreme aversion to all the products of manured land, seek for this with eagerness.

Alpine Snakeweed, *Polygonum viviparum;*—Very copious, but of dwarf growth. The Greenlanders are fond of the root, which is astringent and mealy.

Wild Rosemary, *Ledum palustre*, has a strong turpentine scent, and grows abundant in dry mossy places.

Basil Thyme, *Thymos Acinos;* strong scented; is gathered on sunny rocks, and may be used as a substitute for tea.

Rose root, *Rhodiola rosea*, has a granulated root with the fragrance of rose water, which it preserves when exsiccated. The root and the whole of the plant are eaten with relish by the natives. It covers the rocks and the kupp-turf in large patches. A root of this plant which I had kept for a year wrapt up in paper in a warm room, took root and grew when put into the ground.

But the most common vegetable of this country, is the *Cochlearia*, or Scurvy-grass, which is found in inconceivable abundance wherever blubber or manure of any kind has prepared a soil. The ruins of old buildings in particular are quite overgrown with it. The plant is an annual, but so productive, that twelve branches or more will shoot up from one seed. It sows itself in winter. The birds also which make their ap-

pearance in that season, probably assist in its dispersion. It shoots up in winter under the snow, and even the plants of the preceding year sprout anew, though very small. It is gathered in autumn, and preserved through the winter covered with snow; a soup is made of it which has an excellent relish, at least in this barren land, and is the best medicine for all diseases. It is eaten as a salad, and is very agreeable when fresh plucked, as it has not the tartness of the European herb, and is of an agreeable bitter-sweet. A plentiful supper of this salad interrupts sleep; a sign that it acts as a stimulant, and promotes the circulation of the blood. Whenever, owing to want of sufficient exercise in the winter, I was attacked by symptoms of scurvy, as listlessness, a pressure on the limbs, heat, giddiness, or an oppression of the breast, which are quickly followed by painful boils, I found a handful of scurvy-grass, with a draught of cold water, my best and speediest remedy. This plant seems intended as a kind boon to the inhabitants of the north, where it grows most plentifully, and might prove a catholicon for all the distempers of the Greenlanders, did not its habitat *in fimetis et stercoratis*, present such an insuperable bar to their delicacy.

III. Grass is found not only on boggy, sandy, or turf land, where it is commonly very poor and diminutive, but also in clefts of rocks filled with earth, and particularly near human habitations, where it grows very luxuriantly. One species, (*Agrostis arundinacea*,) much resembles the reed, but has a more slender stalk, and the Greenlanders twist very neat baskets of it. Another kind, less common, (*Elymus arenarius*,) grows near buildings, on a bottom of sand and gravel, and between stones, with long broad leaves, and a stalk upwards of a yard long. Its spike resembles that of wheat, and is often six inches in length. The grains are like oats, but owing to the shortness of the summer, they seldom come to maturity. The Greenlanders make use of this grass to line their shoes and boots.

Several trials have been made to grow oats and barley. They send up as high a blade as in other countries,

but seldom come into ear, and are in the very warmest situations prevented from ripening by the night frosts.

The gardens cannot be very productive, as no seed can be sown till the middle of June. Even then the soil is frozen at a little depth below the surface, and in September the frost recommences. Every thing must then be taken out of the earth, and laid up to keep, except chives, which will endure the winter. Salad and cabbage will not bear transplanting, and remain very small. Radishes thrive as well as in Europe. The black radishes are small, and turnips seldom exceed a pigeon's egg in size, but they may be eaten with greens, and have an excellent taste. This is all that can be reared in the gardens, nor will they produce even this, unless they are screened from the north wind and the spray of the sea water.

The most plentiful production of this country is moss, which grows in such quantity, and of so many different kinds, that I once counted no less than twenty species round me, while I was sitting on a rock. One species (the *Sphagnum* or bog-moss,) is like a thick soft fur or fleece; the Greenlanders stop up the chinks of their houses with it, and use it as we do waste paper. Another kind has filaments a span long, which adhere together like some sorts of fungi. This serves them for tinder, and a wick to their lamps.

Amongst the Lichens is one quite white, which is the food of the rein-deer in winter, and might in case of necessity preserve the life of an hungry man. An Icelander assured me, that a dark brown kind of this lichen with broader shoots is eaten instead of bread, or boiled with milk like oatmeal. They call it Fialla Grass. It grows here likewise. Both species have at first an unpleasant taste, but when chewed and swallowed have a sweet flavour like rye.

A few species of Fungi occur, but all very diminutive.

IV. There are several varieties of low under-wood, where the rein-deer find pasture, and which the natives use for kindling fires. The *Azalea* is a beautiful creep-

ing shrub with a profusion of red flowers. Several berry-bearing shrubs also occur, as the bilberry and cranberry. The Crow or crake-berry, (*Empetrum nigrum,*) is a low heath-like plant, with small oblong leaves, and flesh-coloured flowers which produce black juicy berries, not ungrateful to the palate. It grows here in abundance. Another plant, *Andromeda*, much resembling this, bears violet bell-shaped flowers without berries. The cloud-berry, (*Rubus Chamæmorus,*) never comes to maturity. The leaf and fruit is much like the mulberry, only the berry is yellow. The stalk is a finger's length, and the flower has four white petals. This plant grows only in northern climates, and its berries are packed up in small vessels for exportation. They are a great delicacy, and an excellent remedy for the scurvy.

The Greenlanders eagerly collect all these fruits, particularly the crake-berries, which keep through the winter under the snow. They do not however set any value upon the Juniper-berry, which grows here far larger than in Europe, though the bush itself trails on the earth. Besides the shrubs already mentioned, several species of Willows find a nourishment, but are obliged by the cold to creep like broom along the ground. Nor do the birches, which are of a dwarf kind with small indented leaves, mount any higher. But in the fiordes, where warmth is stronger and more lasting, these trees and the elders which overhang the brooks, grow to the height of a man, and have a stem three or four inches thick. Their crookedness, however, which makes it impossible to bind them in faggots for loading, and the nature of the wood itself, being unadapted for combustion, render it, not withstanding its abundance, of little service for fire-wood, and recourse must be had to turf, drift-wood, or coal imported from other countries.

According to the report of the Greenlanders, the southern part of the country produces trees of a much greater size than those found in the north. The wild Service-tree grows there in abundance, and brings its fruit to maturity. The Aspen poplar must likewise be a native of the south coast, as the sea frequently throws

branches of it ashore here. They also mention a kind of pulse which after our example they boil and eat; likewise a fruit which seems, from their description, to be a large species of plum, and they even compare it to an orange. But the country becomes colder and more sterile the farther we proceed northward, till at last nothing is met with but bare rocks.

V. We shall conclude our account of vegetables with the productions of the sea. Very few of these have come under human observation, but why may they not be as numerous as those of the land, and as useful, if our knowledge of them were less limited? It is long since the observation was first made, that the depths of ocean are as diversified as the upper land; that there also nature sports in an interchange of hill and valley and wide extended champaign. Islands and cliffs are but the emerging summits of mountains whose bases dive towards the central recesses of the earth. The higher and steeper the shore of any continent is, the deeper is the sea which washes it. The plummet which at one time brings up mud and slime, at another different kinds of sand, is a plain indication that the bottom of the sea is also composed of a variety of soils. Is there not then a high probability that those secret depths are the receptacle, not only of grass and sea-weed, such as is sometimes rent by a tempest from its native rock and cast upon the strand, but of large trees, like those in which the lines of fishermen are often entangled, and bring up with them broken branches that have hitherto served only to grace the cabinets of naturalists, but are doubtless intended to answer some purpose of higher utility? Probably they are the food of innumerable sea monsters, which seldom or never make their appearance on the surface. I have observed that the smallest and most tender sea-weeds, which grow near the strand, are filled with a number of animalculæ which have eaten through them, and the larger species, which are ejected from a considerable depth in the sea, are bitten and bored through in various ways.

The sea-weed that lines the coasts of Greenland is principally of the *Fuci* tribe, and of a dark-green or brown colour. With its slender fibrous roots, which are intended rather to fix the plant than to nourish it, it cleaves so fast to rocks, stones, or muscles, that it is separated with difficulty and torn away only by heavy storms and the motion of the waves, which sometimes rolls along heavy stones. The smallest kinds grow nearest the shore and are from three or four inches to a foot long. I have sometimes enumerated twenty different sorts. The farther they penetrate into the sea the larger do the species become, and they are totally different from those found on the shore. In the smaller kinds the receptacles of the seeds, shaped like peas and beans, are distinctly to be seen, and are filled with small black grains. I could never, however, observe these grains sufficiently ripe for the propagation of the plant by seed. These algæ assume the appearance of oak leaves, of pea-straw, tufts of hair, peacock's feathers, with numberless other grotesque shapes.

Farther from the strand the grass-like *Confervas* are seen floating. These are twisted together and elongated by the motion of the waves till they are frequently as thick as a man's arm and several fathoms in length. The largest kind of algæ has a hollow stem of two or three fathoms long, tapering at the root, and one or two inches thick at the upper extremity; its leaf is likewise two or three fathoms long and nearly a yard broad. Another has a flat compact stem, which runs through the middle of the leaf. If these two kinds are dried in the shade, long thin crystals of fine salt collect on the one, and of sugar on the other. The latter is probably the *Alga saccharifera*, which, according to Bartholin, is eaten with butter by the Icelanders. Sheep eat it with avidity in winter, and the Greenlanders and Europeans themselves will relish it in times of scarcity. The Greenlanders commonly eat a tender red and green leaf for refreshment as a salad, which is a useful antidote to the scurvy.

I have seen but few either of the soft and porous, or of the solid corals, described by Pontoppidan* ; but a pretty large tree of coral was sent from hence to Copenhagen, and they are probably not scarce in these seas.

* Natural History of Norway, pt 1. ch. 6.

BOOK II.—CHAP. I.

Land Animals, Land and Sea Fowls.—I. *Quadrupeds. Hares, Reindeer, Foxes, White Bears and Dogs.*—II. *European Animals, Insects.*—III. *Land-Birds, Singing-Birds, Eagles, Hawks, Owls, and Ravens.*—IV. *Different Varieties of Sea-Fowl.*—V. *First Class, with spoon-shaped bills.*—VI. *Second Class, with short wings.*—VII. *Third Class, with long wings, Mews, &c.*—VIII. *Nourishment of Sea Fowl, and their propagation.*

I. THOUGH the general character of Greenland is barrenness, some species of animals find nourishment from its soil, and supply the inhabitants with food and clothing. Many of these are such as can exist only in northern climates, and frequent places which are quite uninhabitable for man.

Of edible game, hares and reindeer are the most numerous, though the latter have become more scarce of late. The hares are white both winter and summer, differing in this respect from those of Norway, which are white in winter, and grey in summer: they are tolerably large, with a coating of fat between the skin and flesh, live upon grass and white moss, but are held in no estimation by the Greenlanders.

The reindeer is the northern stag, and is found also in Spitsbergen, Siberia, Norway, Lapland, and the most northern tracts of America. It is impossible for them to exist in warmer countries, where they cannot breathe the clear mountain air, and browze the tender grass and moss of polar regions. It is well known that the Laplanders possess herds of reindeer, sometimes amounting to several hundred, or even a thousand head, which supply them with flesh, milk and cheese, drag sledges loaded with all their substance, and even serve instead of post-horses. Those of Greenland are wild and fleet, and their smell is so acute that they rarely suffer the hunter to steal upon them unawares, especially if the wind blow the scent towards them. The missionaries once

caught and brought up a young reindeer, and it grew, after some time, as tame as a child, but played the Greenlanders so many mischievous tricks, that they were forced to kill it. The largest are about the size of a small heifer, generally brown or grey, with white bellies. They are covered with very thick hair, about an inch in length. Their antlers, which they cast in the spring of every year, differ from those of the stag, in being smooth, and about three inches broad at top. While the new horns are young and tender, they are protected by a woolly covering, which the animal afterwards rubs off. In spring they also get a new coat of hair. The reindeer is then very lean, and its skin is thin, and little worth; but in autumn, their hide is thick, hairy, and lined with fat. This alternate increase and diminution of their flesh and hair, (as Anderson remarks of all polar animals,) enables them to bear both the heats of summer, and the intense cold of winter. They are very cleanly, delicate creatures, and their flesh is tender, and well flavoured. In summer they crop the fine tender grass in the valleys, and in winter pick the white moss growing in the clefts of rocks, from under the snow.

Baal's River was formerly the principal resort of reindeer, and the Greenlanders used to unite in a kind of general hunting match to kill them. The women and children surrounded a whole district, sticking up logs of wood to look like men, when they were defective in numbers; and then proceeding in a straight line, drove all the timid animals into a narrow space in the centre, where they were easily killed by the hunters. Another way was for the women to chase them in great numbers into a narrow bay, where they were pierced by the men in their kajaks, with harpoons and arrows. Since the introduction of powder and shot into Greenland, they have been thinned very much: yet many of the natives still spend their best summer months in hunting them, in order to procure a few skins for extraordinary occasions.

The farther we advance northward, the fewer reindeer are met with. Several are killed every year on

Disko island, which circumstance has given occasion to the fable, that a gigantic Greenlander severed this piece of land from Baal's River, and towed it out to sea by a rope tied to his kajak; and farther, that he intended to have united it with the main land, but was prevented by a pregnant woman, who was tempted by curiosity to peep out of her tent. In proof of this absurdity, they show the hole in the rocks, through which he drew the rope.

The foxes of Greenland are small, and rather differently shaped from those of Europe. They bear a near resemblance to the rock foxes or pezzi of Siberia. Their head and feet are like those of a dog, and their cry is not unlike the barking of that animal. Most are of a blue-grey colour, though some are white, and they all have a very thick coat of hair in winter. Their fur never changes colour, only that of the blue fox, when about to be cast, becomes rather sallow, and is then good for nothing.

Their general food is birds and eggs, but when these are not to be had, they will eat cranberries, muscles, crabs, or other fishes thrown out upon land by the waves. No uncommon degree of cunning has been observed in their habits, except that they sometimes stir the water with their fore-feet, and suddenly seize and devour such fishes as are attracted by curiosity to the spot. This artifice has been imitated by the Greenland women with success. They generally have their dens among broken rocks, and are caught by the Greenlanders in various ways. One method is by means of a stone trap, shaped like a small house. Within it they place a piece of meat, and tie it with a cord to a large broad stone, fixed in such a manner, that when the fox seizes the meat, the stone falls down and closes up the mouth of the trap. They are also caught in nooses, composed of whale-bone, and laid over a hole in the snow, which is filled with herrings. While the fox is in the act of stealing the herrings, a Greenlander, who is concealed in a snow-house, pulls the noose, and he is taken. Sometimes pits are dug, and slightly covered

with sticks and earth, into which the fox falls, being attracted by the smell of some fish laid at top. When pressed by hunger, the Greenlanders prefer the flesh of foxes to that of hares.

The animals we have been describing are not at all mischievous, but, on the contrary, are very valuable on account of their fur. The only fierce and dangerous quadrupeds found in the country, are the white bears, which infest principally the northern parts of Greenland, Hudson's Bay, Siberia, and Spitsbergen. Their head tapers towards the snout, and their cry is like the barking of a dog. They are covered with long woolly hair, and are much larger than the black variety, being often found from four to six yards in length. Their flesh, which is white and tastes something like mutton, is much relished by the Greenlanders. From their fat, which is very abundant, good train oil is melted, and what grows on the tail is used as a drug. They traverse the fields of ice in quest of dead whales, or seals, and sometimes even attack the walruss, which, however, inflicts dreadful wounds with its long tusks, and often conquers in the battle. It is their custom to swim from one field of ice to another, and when closely pursued they dive under the water till no means are left of escaping, and then defend themselves with obstinate fierceness against all assailants, however numerous, often killing several before they are overcome. Their food is generally dead seals, birds, and eggs, but when hungry they will also eat men, and even disinter dead bodies and devour them. In winter they lie dormant in cavities of the rocks, or buried in the snow, till the warmth of the sun invites them to leave their retreat. The houses of the Greenlanders are then in great danger from these animals, which are attracted by the smell of the train oil to invade and plunder them. The former immediately set up the hue and cry against the robbers, surround them with their dogs, and kill them with their lances and harpoons, though frequently at the expense of many lives. Few are seen in the neighbourhood of Godhaab,

but several Greenlanders were lately torn in pieces by them, near the colony of South Bay.

Some Greenlanders pretend to have seen black bears, and their imaginations aided by fear, have exaggerated them into monsters six fathoms in length. But it is more usual among the natives to talk of a certain species of tiger, which they call *Amarok*. These animals, which, according to their description, are covered with white and black spots, and about the size of a calf, have never been seen by any European. They may possibly be a species of spotted bears, such as have been known to cross the ice between Greenland and Iceland.

The only domestic animals the Greenlanders possess are dogs, of a middling size, and very much resembling a wolf. Most of them are white, though some are covered with a thick coat of long black hair. They never bark, but often set up a dismal howl, and, owing to their extreme stupidity, are of little use in hunting, except to drive the bears into a decoy. The Greenlanders use them as we do horses, often harnessing eight or ten to a sledge. In this equipage they visit each other, and at Disko, where the bay freezes over, draw home their seals over the ice. Some of the natives in a scarcity of provisions will eat their dogs; and they use their skins as bed-covers and bordering for their dress.

II. In the year 1759, one of the missionaries brought over three sheep from Denmark to New Herrnhut. These multiplied so much, by producing two or three lambs at a birth, that the brethren, after yearly killing several, and sending a few to Lichtenfels as breeders, have been able to preserve ten over winter. It may be farther remarked, in proof of the nutritious nature of the grass in Greenland, that lambs, the autumn after birth, are as large as those a year old in Germany, and that more than twenty pounds of tallow, and seventy pounds of flesh, are often obtained from one ram. The flesh has very little lean, but the fat is not at all rancid, and may be eaten freely without detriment to the stomach. Their small flock of sheep has often afforded the brethren

an agreeable substitute for salt beef in a scarcity of reindeer's flesh, and butter.

The plain surrounding New Herrnhut would be abundant pasturage for a flock of two or three hundred, during the four summer months; but what precludes the possibility of keeping more than ten through the year, is the difficulty of procuring provender for the winter, which must be collected with great trouble from the ruins of Greenland houses, and brought from a great distance by water.

Oxen were formerly kept at Godhaab, but it was found too expensive and troublesome to provide them with food. Goats or swine might be easily maintained there, were not these animals so mischievous, as to commit depredations upon the provisions and tent-skins of the Greenlanders, which are frequently left in the open air.

Of the insect tribe and vermin, both small and large gnats are found; but the latter are by far the most numerous, and in a hazy summer's day are exceedingly troublesome, as their bite produces an immediate swelling of the part; they however only fly about for six weeks in summer. Round the Greenland houses, where there is never a want of half rotten flesh and bones, large swarms of flies are constantly seen. Small flies armed with stings are sometimes met with, and, very rarely, a species of humble bee, which collects honey from the flowers. I once saw a couple of yellow butterflies, but never any caterpillars. All kinds of earth worms abound, but with the exception of a small species of spider, no poisonous animals; no snakes, toads, frogs, rats or mice, which cannot endure the excessive cold, exist in Greenland.

III. Owing to the barrenness of the country there is no great number or variety of birds in Greenland. A species of partridge, called in Norway *Rypen*, (*Tetrao lagopus*,) are pretty numerous. They only frequent cold, alpine districts, and in Switzerland are called snow-hens. In summer they are grey, and in winter white. Some maintain that their feathers never fall off, and only change colour; but more accurate observers

have noticed that they cast them both in spring and autumn. The beak and the extremities of the neck-feathers remain always grey. In summer they frequent the valleys where cranberries and herbs grow most plentifully, but never fly far inland, as they seem fond of the cool sea-breezes. Another probable reason of their predilection for the coast, is that they are best able to procure food on the rocks near the shore, from which the snow is generally swept by the wind.

Much has been written concerning the peculiar instinct observable in the habits of these birds, displaying the Providence of God over his irrational creatures; but though we read the examples of it with pleasure, they must be confessed to be poorly attested, and to involve evident contradictions. It has been remarked that they lay up a store of berries for winter consumption, near their nests, which are built on the summits of the highest cliffs; and again, that on the approach of winter, after making a hearty meal, they bury themselves in the snow, and live during the cold weather on the contents of their crop. These observations are inconsistent, and however true they may be, taken separately, of other birds, neither of them applies to the Rypen, which may be seen throughout the whole winter flying in large flocks about the rocks, and seeking their daily sustenance. The goodness of Providence is however displayed otherwise in their behalf. It has been noticed that they never fly over a hedge on which nooses are laid, and consequently are caught from mere stupidity. If a man approaches, they erect their heads, instead of hiding among the rocks, and betray themselves by screaming; and when aimed at with a gun or stone, they stand quite still, staring at their enemy. Now, as some compensation for this natural helplessness, Providence has wisely ordained that in summer they should be grey, the colour of rocks, and in winter white like the snow, in order that birds of prey may not easily distinguish them from the ground on which they sit. Their toes differ from those of other land birds in not being entirely separated, and having at their extremi-

ties large excrescences covered with short feathers like wool. * This peculiar formation seems designed partly to enable them to withstand the effects of cold, to which they are much exposed, and partly that, when they fly over a broad sheet of water and fall in from weariness, they may be able to save themselves by swimming. I myself saw a young one which was caught by the Greenlanders, and fell into the water on its first flight, swimming like a water-hen. Yet these birds, seemingly of such an easy disposition, can never be tamed by confinement, but when caught refuse all nourishment, and generally fret themselves to death in the space of a few hours.

Of smaller birds there are snipes, which live chiefly on muscles and shell-fish left on the strand; they are good eating, but very diminutive. Several species of small singing birds visit Greenland in summer when the seeds of herbs, and especially of the scurvy grass are ripe. One kind resembles the sparrow, except in being somewhat larger, and having more beautiful plumage, with a finer voice. Others are like the linnet, with a tuft of red scarlet feathers on their heads, and sing very agreeably. The Norwegians call them *Irisk*. Both sorts may be tamed, and fed with groats, but seldom live out the winter, owing to the heat of the rooms in which they are kept. They are sometimes thrown on board vessels by a storm when sixty or seventy leagues from the shore. Another sort resembles the wagtail, and in Norway is called *Steensquette*. Other small singing birds, with grey backs and white bellies, have sometimes been seen among unfrequented rocks. They must be either the Fossefald of Pontoppidan, or the snow-bird. The Greenlanders say that they hide, during winter, in the clefts of rocks.

Of foreign birds, hens and pigeons have been imported; but their maintenance is found too expensive. Ducks might be more easily kept were it not for their swimming so far from the shore, and being consequently

* Hence the bird has its specific name of *hares-foot*.

frequently carried away by the waves in a storm. Of birds of prey, large dark brown eagles are found, which, when flying, measure eight feet between the tips of the wings. They prey both upon land and sea-fowl. Marking the spot where the latter dive, and hovering over it, they seize them at the moment of their rising. They even sometimes draw young seals out of the water with their talons. There are also grey and spotted falcons, and white owls; but they are not numerous, and only found among the mountains. On the other hand, ravens are very common, especially in the vicinity of Greenland houses, and often rob the inhabitants of their provisions; being so ravenous as to tear even their leathern boots. They are much larger than our ravens, and feed chiefly upon marine insects, muscles, star-fish, and the like. They break the muscles by carrying them to a great height in the air, and then letting them fall on the rocks, but, when very hungry, are known to swallow shell and all. Crow-berries also form a part of their diet. They are very difficult to shoot; but the Greenlanders take them in snares, and in a scarcity of whalebone use their feathers to make fishing lines.

Nothing is known of fleas and bugs, and it was remarked that a dog which happened to be on board the vessel I was in, and swarmed with such vermin *before*, got rid of them completely as soon as we came between Shetland and Iceland. The Greenlanders, however, are very much troubled with lice.

IV. But it is time to turn to the animate productions of the ocean, which from their number and variety, amply compensate for the poverty of the land.

Previous to enumerating in the first place the different species of sea-fowl, we may just remind our readers, that almost all the feathered race destined by nature to seek their sustenance in the water, are web-footed, having their toes connected by a membrane. Their feet also are commonly situated far back in their bodies, and bent towards the tail, in a manner which makes their gait awkward on land, but enables them to swim with ease and velocity. All of them, and particularly those which

dive to a great depth in search of fishes, are clothed with a well compacted coat of strong feathers, embedded in thick soft down, which, together with a lining of fat under the skin, and abundance of blood, preserves their body warm, and facilitates their swimming. It has been remarked of some, that they always swim or fly against the wind, in order to prevent their feathers from being ruffled. Fowlers generally endeavour to shoot them from behind, as the shot cannot easily penetrate the thick feathers on their breast and sides. Some species have only three toes, and others a fourth, which is very short, but armed like the rest with a claw. Many species have very short wings, and on that account are more expert divers, and spend most of their lives in the water. Their bills are variously formed, some being broad and spoon-like, as in the duck species, others round and pointed like that of the willock. Again, others, as the mews, are prevented from diving by their length of wing, and must consequently seize their prey while flying; they are accordingly furnished with a sharp and somewhat crooked bill. In classifying the several species of sea-fowl, we shall be guided by the formation of the beak and wings, as more evident marks of distinction, than the number of the wing and tail feathers, and arrange them under the heads of ducks and mews, though several species might perhaps, from the different distinguishing features, be more properly reckoned to other genera.

V. To the birds of the duck-genus, which have comparatively short wings, and a broad spoon-shaped bill, belong,

1. Wild grey geese, more common in warm climates than in Greenland. They flock hither in the beginning of summer, probably from the shores of America, in order to hatch their young, and return back on the approach of winter.

2. Wild ducks which breed both on the sea-shore, and near fresh-water ponds. They may be subdivided into two distinct species, those with broad bills, (Greenland *Kerlutok*,) bearing an exact resemblance to tame ducks;

and secondly those with pointed beaks, and a tuft of feathers on their heads, (Greenland *Peksok.*) They generally bring forth their young near ponds of fresh water. There is also a third species called in Norway the Stock-ducks, or Bernacles (*Anas Bernicla,*) of an ash-grey colour with black breast. It was formerly the general opinion that these birds laid no eggs, nor propagated their kind in the usual way, but that they were engendered by the slime adhering to rotten drift wood. Some affirm that a muscle is produced from this slime, (*Lepas anatifera,*) containing a worm, which in time gets wings, falls into the sea, and there arrives at maturity. Many of the ancients were of this opinion; and a certain noted school of divinity gave out that bernacle fowls might be eaten in the lent season, without remorse of conscience, being produced by the sea. The falsehood of these assertions has been fully exposed, as several intelligent men have proved that the stock-duck or bernacle lays eggs, and hatches them like other birds, and that the lepas anatifera, (*angeltasche*) is only a kind of muscle or polypus.*

3. The sea-pheasant, also called by the Norwegians *Angeltasche*, must not be confounded with the above-mentioned insect, but is a fowl less than a duck, with a grey back, and white breast and belly.

4. A beautiful nondescript bird, entirely black, with the exception of a few white spots on the breast, and red streaks on its head. It is not known in Norway, and professor Egede has given it no name in his Greenland Lexicon.

5. The Eider-Fowl (*Anas Mollissima*), is the most beautiful and useful of the duck species. Its flesh is palatable, and eaten in a scarcity of other fresh meat; although like that of all sea-fowl, it has rather an oily and rancid taste. The skin also is profitable, as both Greenlanders and Europeans make soft warm drawers of it; and its eggs are collected and eaten in great numbers in June and July. But what causes this fowl

* See Note viii.

[illegible] in such request is the value of its down, which may be plucked off by handfuls, when the stronger feathers are removed. The best is found in the nests, which the mother plucks off her breast to make a soft bed for her young. It is indeed mixed with excrements, from which they separate it by means of a sieve. The filth, as the heavier substance, falls through, and the light down adheres to the wires. When its eggs are taken out of the nest, it will lay afresh three or four times running, always four at a brood, each time plucking fresh down from its breast. This device is often practised in Iceland, where great pains are taken to collect the down.

There are two sorts of Eider-ducks. The most common is called by the Greenlanders, *Mittek*. The female has yellow feathers edged with black, and at a distance looks grey. The male has a black breast and a white back with a violet coloured head, and a white neck. The other sort is called Kingalik, *i. e. Nasutus*, because it has a large orange-coloured excrescence between its nostrils. It differs from the Mittek in colour, the female being brownish, and the male chiefly black with white wings, and light coloured spots on the back. Both kinds are larger than a common duck. The first is most numerous. In summer, while they are breeding, but few are seen; but in winter, they leave the fiordes in large flocks to seek food on the islands, consisting principally of muscles; and in the evening again resort to the still creeks and bays. They never fly over land, but follow the windings of the water; and in a strong north wind take shelter under the rocks on the shore. At such times, they are shot in great numbers from the land, and taken up by Greenlanders in their kajaks. Those, however, which are not killed outright by the first shot, dive under the water, lay hold of the long sea-weed with their beaks, and seldom rise any more. *

* A Natural History of the Eider-Fowl has been published at Copenhagen, by Mr. Brunnich.

VI. Of the sea-fowl, with a round pointed beak, and still shorter wings than the foregoing, there is a greater variety regarding both size and shape. Their colours are generally different mixtures of black and white. To begin with the largest.

1. *Tuglek*, in colour like a starling, and about as large as a turkey, has a white breast and belly. The ground of the back is black, with white streaks; its neck is green, encircled with a white ring, and surmounted with a beak twenty-four inches in length, and one in thickness. The length of the bird from the head to the insertion of the tail, is two feet; and its breadth between the tips of the wings, which are very small compared with its bulk, about five feet. It has very large webbed feet, much bent towards the tail; and two exceedingly small hinder toes. The Tuglek is probably the *Langivie*, or *Storfuglen*, of Pontoppidan, concerning which he makes many pleasing remarks.

2. The Emmer, or Penguin, (Greenland *Esarokitsok*, the short winged,) is about the size of the former; but owing to the shortness of its wings, which are not above six inches in length, with a scanty covering of feathers, is quite unable to fly. The legs are situated so far back, and are so much bent, that it is difficult to conceive how it can stand. The Norwegians therefore maintain that this bird is never seen on land, except in the Christmas week, which they call the week of penguins; that it lays two eggs, not in a nest like other birds, but hatches them under its wings.

3. The Sharf, (Greenland *Okeitsok*, *i. e.* small tongued,) has scarcely any tongue, and no voice whatever: it very much resembles the penguin in every thing but the wings; and from its long beak and legs, might be aptly denominated the sea-stork. The appetite of this bird is ravenous, and an incredible quantity of fish is sometimes found in its maw: it often seizes them from twenty to thirty fathoms below the surface, and, like the stork, will cram down whole fishes of half a yard in length, and even flounders measuring no less in breadth. The only time for shooting it is while swallowing its

prey, as at other times it is very shy and vigilant, having large prominent eyes, encircled with red and yellow rings, and well adapted for an extensive view.

The three last mentioned fowls properly belong to the genus of *mergi*, of which Johnston* enumerates twelve species, and observing that some of them may be tamed, and employed in fishing.

4. The Lumm, diver, or loon, bears a near resemblance to the preceding, but has longer wings, and flies higher than any other bird of this genus. It has a dark grey head, light-coloured back, and a white belly, breeds near fresh-water ponds, and remains sitting on the eggs even when the nest is filled with water. The Lumm is called by some the summer-fowl, because they think that warm weather never properly sets in till it makes its appearance. Like wild geese and other sea fowl, which are seen only in summer, it must take up its winter quarters in milder climates. The Greenland name, *Karsaak*, is probably an imitation of its cry, which resembles that of a duck, and is considered ominous of rainy or fine weather, according as it is cut short, or joyfully lengthened out.

The Awk, (Greenland *Akpa*,) is about the size of a common duck, has a coal-black back, and white belly. They generally keep at a good distance from land, but in severe frosts flock in such multitudes to the shore that the water seems overspread with an immense black carpet. The Greenlanders then shoot them with arrows, or drive them in great numbers to land, where they are easily caught, being unable to escape either by running or flying. The flesh of these birds, which is more tender and better flavoured than that of any other sea-fowl, is the principal food of the Greenlanders; and near the mouth of Baal's River, in February and March, most of the natives make their under-dress of awk-skins.

6. The sea-pigeon, called by the Greenlanders *Serbak*, the bird of the stream, river-bird, because it goes in search of food in the strongest currents, is shaped nearly

* See Nat. Hist. of Birds, book iv. chap. 7.

like the awk, but is smaller. Its legs and bill are scarlet, and highly beautiful, but in winter, like the rest of the body, turn grey.

7. The Lund, or sea parroquet, has a pointed bill, somewhat curved, about an inch in breadth, and striped with blue and red; and very sharp talons. With these weapons it seizes and often conquers its enemy the raven, by drawing him under water. It also resembles the awk, but is not so large.

8. Their is another variety of sea-parrot, which the Greenlanders call *kallingak*. It is entirely black, and about the size of a pigeon.

9. The *Akpalliarsuk*, or sea-sparrow, has a bill like the former; and though it is only as large as a small fieldfare, exactly resembles the awk.

10. The smallest of this genus is the sea-snipe, which, like the land-snipe of Greenland, lives on small, white muscles; and may be called amphibious, as only two of its toes on each foot are connected by a membrane, and the third is separated, as in land birds. It is consequently at home both on land and water.

VII. Of the sea fowl with long wings and bills, the gull, or sea mew, (*Larus*,) is the most common. This genus may again be subdivided into four different species. The Dutch call the first, which has a black back, and is as large as a duck, Burgo-master, and the others Counsellors. The other species are distinguished partly by their size, (for the smallest is only as large as a pigeon,) and partly by their colour, which varies between black, grey, blue, and white. They have a long slender beak, crooked at the point, with a knob to hold fast their prey. The nostrils, which are situated close to the head, are wide and elongated. Their wings are proportionably very long, with which they hover in the air, watching their prey, and as soon as they perceive a fish, dart down upon it with certain aim. They are by no means expert divers, and seldom swim on the water, except to rest themselves; but generally fly about the rocks, waiting for fish to be cast on shore by the surge. They abound along almost every coast; and are fre-

quently seen also on inland lakes, as in those of Switzerland. Johnston enumerates eight species of them, which confine themselves chiefly to rivers.*

2. There is a fifth sort of mews, called by the Greenlanders *Mallemukke*, (the stupid fly,) which are so daring, that they will collect like a swarm of flies on the carcase of a whale, and suffer themselves to be killed, rather than scared away. The Norwegians call them *Havhest*, sea-horse. They seldom approach the land, but are exceedingly numerous about forty miles from shore, collecting round ships in order to catch any rotten flesh that may be thrown overboard. After having gorged too much, they vomit up the contents of their stomachs, and begin afresh. Anderson, in his account of Greenland,† gives a minute anatomical analysis of these fowls.

3. A sixth species, the dung-fowl, called by the Dutch, Strunt-Jager, (*Larus Parasyticus,*) because, if we may credit the accounts of sailors, they pursue the lesser species of gulls, till the latter drop their excrements, which they catch on the wing and swallow, in order to quench the thirst, occasioned by eating whales' blubber. Another device of these birds is, to frighten the gulls, which are more expert fishers than themselves, while devouring their prey. The poor birds immediately begin to scream, and consequently let fall their booty, which these lazy robbers immediately pick up. This trick has often afforded weather-bound sailors much amusement. Linnæus gives us a circumstantial description of the Strunt-Jager, under the name of Labben, *Larus rectricibus intermediis longissimis.*

4. The *Tattaret*, so called by the Greenlanders in imitation of its cry, is the smallest and most beautiful of all the gull genus. Its lower parts are white, and its back of a sky blue colour. It is a bird of passage, spending the winter in warmer countries, and visiting Greenland early in the spring. It most resembles

* Lough Neagh in Ireland is frequented by vast numbers of white gulls.

† Page 177 to 183.

the pigeon, having a short bent beak, with only three toes on each foot, and follows the shoals of small herrings. The Greenland boys are very expert in catching them, with a noose tied to a bundle of heath, and baited with small fish. They build their nests in groups on the tops of the steepest rocks, and if any one pass, all rise with a dreadful noise, as if to frighten him from their abode.

5. The silver-bird, *Sterna hirundo*, (Greenland *Imerko Teilak*, the diver,) is also a bird of passage, about the size of a swallow, which it resembles in having a long forked tail. Its colour is white, with the exception of a black spot on the head. Like a Calotte, it has a sharp beak, very long in proportion to the size of its body. Martens calls it, *Kirmoeve*, and gives us a neat plate of it in his description of Spitsbergen.

Several species of birds frequent both the north and south of Greenland, which are not seen in the latitude of Baal's River. Farther north, a sort of white Awks are found, much smaller than the black ones. Those Greenlanders who live nearest the pole relate that a species of small birds, which they call *Akpallit*, shaped like pigeons, come over the sea every year in such numbers, probably from America, that they quite pollute the fresh water with their excrements. Their tameness is such that they will enter the tents of the Greenlanders, who are afraid to touch them, imagining that a visit from one of these birds forbodes the death of a member of the family. The natives also speak of a species of penguins, so vicious that they will attack Greenlanders in their kajaks.

VIII. The different modes, in which such a multitudinous variety of water-fowl procure their proper nourishment, would be a most amusing research, even confining the inquiry to those, that have come under my observation. During my short stay in Greenland, I had neither time nor opportunity to examine into their various habits, but am led to conclude that those of the duck species are in a great measure disqualified for fishing by their broad blunt bills, which are adapted for a diet on muscles, sea-weed, and the insects it contains.

A muscle was once brought to me, found in an eider-fowl's maw, which was at least twice as large as its beak. It is because birds of this genus eat few fish and very little fat, that their flesh is not so oily and rancid as that of other sea-fowl. The formation of Awks and Willocks on the other hand, qualifies them in every way for catching fish, which they transfix with their pointed beaks, and then swallow entire. Both genera are furnished with short wings and necks, that they may not be impeded in diving; and it has been observed that some species descend more than twenty fathoms into the sea.

Mews or gulls, on the contrary, which have long necks and wings, can scarcely dive at all, but fly with greater swiftness, and can support themselves for a longer period in the air. They too live upon small fish, which they spy out on the wing near the surface, and seize with their sharp beaks; sometimes extending their wings in order to plunge their long necks deeper into the water. Some species can dive for a short time, others entrap the fishes by suddenly closing their wings upon them. However their principal food is dead whales and seals; and their beaks are not only pointed, but also furnished with protuberances, which enable them to cut and detach pieces of flesh with ease. I have never heard of any which like land-birds of prey, pursue and devour the lesser species of sea-fowl.

Concerning their manner of securing their eggs and young ones from the attacks of birds and beasts, Anderson gives us some useful information. Most of them deposit their eggs on the projections or clefts of the steepest rocks, inaccessible to either man or beast; and, as they breed in flocks, frequently join in making a valiant defence against birds of prey. They convey their young brood to a place of safety, sometimes by hiding them in the hollows of rocks, and at other times by carrying them on their backs to the sea.

However all species of sea-fowl do not manifest such caution, or the Greenlanders could get no eggs, as they do not possess the skill of the Norwegians in letting them-

selves down the sides of precipices by a rope. Many kinds merely secure their eggs from the foxes, by building their nests on small islands. The Eider-fowl lays its eggs on the bare ground; so that the natives could formerly gather a boat-full of their eggs in a short time, sometimes finding it difficult to tread without crushing them.

The eggs of most sea-fowl are green. Some are yellow or grey with black or brown spots, and all of them are much larger in proportion to the size of the bird than those of land-birds. The shell and especially the interior skin is much tougher, and the yolk red, especially in the gull genus. Gulls' eggs have also a larger white than others.

In the comparative size of the eggs of sea-fowl is exhibited the compensating wisdom of Providence, which cares for their preservation against the effects of severe cold, though the birds frequently leave their nests for a considerable time. Most species lay but few, and many only two eggs; and, according to the observations of the Norwegians, they are hatched in a short time, often in eight days. The redder the yolk of their eggs is, the more oily and disagreeable their taste; and they can seldom be kept a month without rotting.

CHAPTER II.

Fishes.—I. *General remarks.* — II. *River Fish.* — III. *Sea Fish. Angmarset, Ulke, Cat-fish, Stone-biter and Holibut.* — IV. *Shark and Ray.* —V. *Testacea or Shell-fish. Crabs, Muscles, Sea-acorn, Sea-bug, and Whale-louse; Mollusca, Sepia or Cuttle-fish, Sea Urchin, Star-fish, and Medusa. Zoophytes.*

I. The most numerous and valuable tribes of fishes frequent the Northern Ocean, their proper place of rendezvous. There the ice offers them a secure shelter from the pursuit of the whale, which, like a land animal, has need of constant respiration, and there they may safely propagate in infinite numbers. Hence it is that the northernmost countries, such as Iceland, Lapland, Norway, and the Orcades, are the seats of the most productive and richest fisheries, while along the southern coasts they become progressively more and more scanty, as is eminently the case with the herring. But if these fishes were to remain perpetually under the ice, the larger inhabitants of the deep, and man, the lord of the creation, would miss a valuable article of their food. It has, therefore, been wisely ordained that the smaller fishes, such as the herring tribe, which is incontestibly the most numerous, should be driven in vast shoals from their inaccessible retreats. Whether by want of sustenance for their immense numbers, or by a natural instinct for spawning in warmer countries, or for seeking the food of other climates, or by what other cause, is yet unknown. During their progress, they are chased by cod, mackarel, and other fishes of prey; and all these again are so hotly pursued by the whale and seal, that they fly for shelter into the shallowest bays, creeks, and sand-banks of the land. But even there they fall into the hands of the inhabitants of the coast, who not only use them for food, but find in them a most lucrative article of

commerce, which makes ample amends for the barrenness of their soil. The revenues which Holland and Norway derive from their herring and stock fisheries are truly prodigious. In Norway, a country which has not the most abundant stockfish or herring-fisheries, the city of Bergen alone frequently ships off 600 tons of salted cod and stockfish a-year, besides nearly twenty shiploads of cods' rows; and upwards of forty barrels of anchovies are often drawn in one net, and at one draught. What is still more astonishing, and would scarcely be believed, says Pontoppidan, bishop of Bergen *, did not a whole city attest it, between two and three hundred fishing-boats may be seen crowded together in a space of five miles, and 10,000 barrels of herrings caught at a single cast.

There seems reason to fear lest some species should become extinct under such a rapid consumption, particularly as we may suppose that they fall a prey in still greater quantities to the voracious animals of their own race. The whale devours herrings by hogsheads. According to Dr. N. Horrebow†, six hundred cods, with many herrings and birds, were found in the maw of a stranded whale by a vessel engaged in the cod fishery. But here the incomprehensible wisdom and foresight of God, for the preservation of all his creatures, is nobly displayed. The most ravenous animals are those which multiply the least, while the most helpless creatures, destined to be the food of many others, increase in proportion to their usefulness and the demand for them. Ten thousand eggs are said to have been counted in the row of one herring. From the observations which I have made on the Greenland capelins, these fishes do not deposit their spawn in the sea, but shoal together on the rocks several fathoms high, where they can lodge it on stones and sea-grass in safety from their enemies. To these it firmly adheres till the young fry is hatched by a moderate warmth of the sun and the

* Pontop. Nat. Hist. p. ii. ch. 6.
† Nat. Hist. of Iceland. ch. 54.

gentle washing of the waves. By this thronging into the bays, they fall immediately into the hands of man, and so heedlessly do they rush on, that every void is filled up by new multitudes the instant it is made. And as they have not all the same seasons for spawning, there is not a month in the year which does not present an overflowing abundance of these fishes. In what an admirable light does all this exhibit the bounty of the Creator towards his needy creatures,—a benevolence which seems to be the less felt and acknowledged, in proportion as it is great and astonishing.

The student of Ichthyology ought to spend several years, if not his whole life, on the shores of the North, as the best school for his science. In this station he would not only learn the external characters of the various genera, but make himself a thorough proficient in their natural properties, their means of sustenance, the circumstances of their shoaling, and the functions assigned to each species for the good of the whole.—This would open a wide field for an enquiring and reflecting mind. Ample subject for profound but pleasing meditation would occur during the survey of the dwellers of the deep, from the minutest animalcula discoverable by art, to the overgrown bulk of the whale, the almost fabulous dimensions of sea-monsters, and the marvellous properties of the Zoophytes, with their several natures and the end of their creation. The Natural History of Fishes would then be a feasible undertaking, and the occasional reflections and observations which, however, adorn our modern works of science with a far better grace than the accumulated figments and ridiculously erudite authorities of the ancients, would assume a more imposing tone of conviction. Still however the most powerful and penetrating spirit will never be able to dive so deeply into that manifold wisdom of God which is displayed in all the works of his hands, as to give a perfect system of natural history, even in its most obvious parts. But this imperfection, which will for ever limit human exertion, leaves the charm of perpetual novelty to the investigation of nature, and

gives room for perpetual accessions to that praise which the great Maker expects from all his creatures.*

No very full account of this part of the animal kingdom can be expected from one, whose short residence of a year in the north, presented few opportunities of accurate observation, and who could not visit all the best fishing stations.

As little can the greater part of the missionaries spare time from their more important avocations; not to mention the distraction from their main object, which they would risk in an eager pursuit of these studies. Greenland itself is not so fruitful in a variety of fishes as other northern coasts in the same latitudes.

A vast store must necessarily be contained in the sea to supply the whales and seals with food, but this very circumstance prevents their being seen in so great abundance by man. Some species entirely withdraw themselves from places much frequented by seals, and others keep at a distance from land in deep water, where the seals, who must frequently draw in fresh air, cannot follow. The proper herring does not come so high as these latitudes. This, together with the want of shallows and sandbanks, perhaps also of different kinds of sea vegetables, may probably be the reason why several kinds of fishes, very abundant in Norway, are quite unknown in Greenland.

II. Here likewise no large rivers water the country, or at least they are rendered innavigable by the ice. The only river-fish, therefore, that is known, is the Salmon-trout, which is plentiful in brooks, and tolerably large and fat.

A few of the common salmon have, it is true, been seen in certain places, but they fall greatly short of

* This observation is not less true at the present day than when our author wrote. The teeming fecundity of nature is by no means diminished; we may rather be led to imagine that in some branches of her kingdom a new creation is going on every day. When Linnæus published his *Species Plantarum*, he reckoned the number of vegetable species at 7500. At present the whole number of known plants is computed to exceed 50,000. The other departments of nature appear to be receiving additions in a similar proportion.

those of Norway and other countries in size. The Greenlanders catch these fishes under the stones with their hands, or strike them with a prong of bone or iron. At the season when the salmon ascend from the sea into the rivers, the natives build a wear of stones across the mouth of the stream at low water; over these the fish pass with the tide, and are left in the shallows by the ensuing ebb. The Europeans commonly take them with nets in the ponds, but a Greenlander with his kajak must always be present to guide the net between the stones.

III. The ordinary food of the Greenlanders is the *Angmarset*, or Greenland Salmon, *Salmo Grœnlandicus*. The Newfoundland men call these fishes Capelins*. They are about half a foot long; their backs, which are dark green, are broad and furnished with subtle cross bones; the abdomen is of a silver white; they are destitute of any perceptible scales; they throng into the fiordes in such multitudes that the sea has quite a black and bristly appearance. They are seen in March and April, when the tattaret, above described, betrays their arrival, but they do not spawn till May and June, at which time the Greenlanders lade out whole boat-loads, of them with hoop sieves strung with sinews: they dry them on the rocks in the open air, and store them up in leathern sacks, or cast-off clothes, for their winter provision.

2. The Red-fish, or Alpine Trout, (*Salmo alpinus*,) derives its name from the red colour of its scales. This and the common salmon are the only scaly fishes known on this coast. Its fins are large and thorny, in other respects it resembles the carp. These fishes are fat and well tasted, but not often met with.

3. A few of the common species of herring are caught in the south, but these are probably no more than stragglers from the great shoal which drives from the Icy sea, by way of Iceland, to the shores of America. This

* Crantz, following Linnæus, who gave this fish the name of *Clupea villosa*, considers it as a small species of herring; but it seems evidently to belong to the salmon tribe.

wonderful host divides itself in the more southern part of its progress down the Atlantic, into two large squadrons, * one of which steers westward to America, the other eastward in sundry branches to the shores of Norway, Jutland, Ireland, Scotland, and especially the Shetland isles, where they yield the Dutch busses a rich booty. †

4. The most common food of the Greenlanders next to the Capelin, is the Lasher Bullhead, or *Ulke*, *Scorpius Cottus*, Lin. This fish may be found at any season of the year in all the inlets of the coast in deep water, and is caught most plentifully in winter, by poor women and children, with a line of whalebone or feathers thirty or forty fathoms long. A blue stone is fastened to the end of this line to sink it, and a white bone, or a glass bead, or a bit of red cloth, serves for a bait. The fish is commonly a foot long, and full of bones. The skin is quite smooth and variegated with yellow, green, red, and black spots, like a lizard's. It has a very large round head, wide mouth, and the dorsal fins in particular are large and prickly. Ugly as the outside of this fish appears, its flesh is well flavoured and wholesome, and makes excellent soup. Invalids may eat it with safety.

5. A considerable number of Dorse frequent these coasts, but they are mostly lean and diminutive. Anderson gives a correct account both of this and the *Kabbelau*, or Cod-fish, which is also caught here, though in no great abundance, and describes the manner in which they are salted and dried by the Icelanders and Norwegians. They are distinguished into rock-fish, hung-fish, flat-fish, round-fish, and red-fish, according to the different modes in which they are cured; but all these kinds are exported under the common name of stock-fish. A long slender fish like a herring is found

* The word herring, as Pennant observes, is derived from the German, *Heer*, a host.

† See Anderson's *Account of Iceland*, where several amusing, and instructive observations on this subject may be found, and the 77th number of *Der Arzt*, a German weekly paper of some celebrity.

in the swallow of the cod, which is probably the same as the Sand-herring of Iceland.

6. In April and May the *Nepisets* or Sea-cats, *Cyclopterus Lumpus*, or Lump-sucker, called by the Danes Rogen-Kall, from their immense row, visit the land to deposit their spawn, and are then struck in abundance with prongs, like salmon. At other times they lodge in the sea-grass in the open sea, and are never to be seen. This fish is about a foot long and extremely plump. It has not the proper skin of a fish, but a thick callous integument beset with sharp pointed tubercles; and through this the flesh appears of a red, or if the fish is very fat, of a greenish colour. Five longitudinal rows of horny protuberances traverse the back, belly, and sides. The head is broad, and with its large eyes resembles that of a cat or owl. On the breast, close to the head, it has a white fleshy spot, of the size of a crown piece, by which it adheres so fast to rocks or stones that it cannot be severed from them without difficulty. The flesh is white, but so soft and fat, that a person is soon surfeited with it. This is however remedied by curing the fish. The natives relish it as they do all fish fat. The row, which makes up the greatest part of the fish, they eat boiled like a millet pulp.

7. The Stone-biter, or Wolf-Fish, *Anarrhicas*, Lin. is an uncommon fish, two feet long. It is called by the natives Kigutulik, or *toothed*, because not only the jaws, but the whole mouth above and below is set with long, sharp teeth, which bear more resemblance to those of a dog than a fish. Whatever they seize upon they never quit their hold. Horrebow calls it Lupus Marinus; others the Sea Serpent. It has a round, mis-shapen head; the body like that of the eel is extenuated towards the tail, and is as grey and slippery. The fins extend in a line nearly the whole length of the back and belly. It lives upon muscles, sea urchins, and crabs. Its flesh resembling bacon, is seldom eaten by the Greenlanders, and never when fresh.

There is another kind of this fish which they never

use for food: it is quite slender like an eel, but the tail is furnished with long fins.

8. The common flounder is seen on these coasts, but seldom taken. But at certain seasons the Greenlanders catch great numbers of the Holibut, *Pleuronectes Hypoglossus*, with large fish-hooks, fastened to whale-bone or seal-gut thongs, from a hundred to a hundred and twenty fathoms in length; the largest are a yard and an half or two yards in length, about half as broad, and a full span thick; they weigh from a hundred to two hundred pounds and upwards. The Norwegian holibuts are said to be so large, that a single one when salted cannot be contained in a barrel: they have a smooth skin, white below, and speckled with dark grey on the back; the eyes are larger than those of an ox, and furnished with a kind of eye-lid; the mouth is not large, but has a double row of sharp teeth bent inwards. In the gullet are two pointed gills, besides those in the mouth. Close to the head two small pectoral fins are inserted; and two longitudinal fins descend from head to tail. The peculiarity of this genus is, that one side appears to represent the back, and the opposite side the abdomen. Both the eyes are always situated on one side of the head; some species having them on the right, others on the left side: they swim laterally with that side in which the eyes are seated uppermost. Their principal food is crabs, and on that account they generally reside in deep water. The clumsy figure of this fish, its flat shape, and small fins, would lead to the supposition that it must be a heavy swimmer, and always grovel at the bottom. But the fishermen have assured me, that as soon as it feels the hook, it springs to the surface swifter than they can draw up the line; and upon seeing its enemy, immediately darts aside with such velocity that the friction of the line lacerates their hands. It has coarse, lean flesh, but white and well tasted, and has a large quantity of delicate fat, especially under the fins: of this fat the inhabitants of the north make *Raf*, which is cured by smoke; and they cut the lean flesh into long slices,

in the air and eat raw, and this they call
ainder is salted, and laid up for winter.
ers, however, cut the whole into small
em in the sun.—The holibut seems to
lass of fishes which roves from place to
food; for at some places, Fisher-bay
are never seen at all. Near Godhaab
in May, but commonly and in greatest
and August; yet not within the land,
open sea. Farther to the north, they
make their first appearance at Zukkertop in August and September. A small species of holibut, *Pleur. Cynoglossus*, is also found there only half the size of the common one.

IV. Two genera, the shark and the ray, approximate to land animals in one property, that of bringing forth their young alive; but their external and internal structures are the same as in other fishes, except that their solid parts consist of cartilage instead of bones. The shark, *Squalus*, may with propriety be styled the Sea-dog, from its voracity. The different species of this fish vary so excessively in magnitude, that while some measure only two feet, others are eight or ten fathoms in length, and weigh from ten hundred weight to two tons. An animal of this genus is said to have been found in the Mediterranean with a man in armour in its gullet.

A specimen of the *Squalus Carcharias*, or White Shark, which I had an opportunity of seeing, was between two and three fathoms in length, with two fins on the back, and six on the belly: the tail is unequally divided into two parts. Its colour is grey, though in the water it appears as white as silver. The skin is very rough, and used for polishing wood. In the head, which is two feet long, and shaped like a truncated cone, two large nostrils underneath, immediately attract notice. The mouth, which is a foot wide, is not situated at the anterior extremity of the head, but a full span on the under side of it, in a transverse direction. This circumstance is a great clog to the rapacity of this animal, for while he turns himself upon his back to seize his prey,

he affords it time to escape. Five or si[illegible] pointed teeth are ranged in the upper j[illegible] jaw contains two rows of fifty-two larg[illegible] rather hooked, and extremely sharp; half of [illegible]hem bend one way, and half another, so that they resemble a double-toothed saw, and the Greenlanders formerly used them instead of that instrument. The eyes are larger than those of an ox; behind them are situated the ears, but without auricles. This fish, excepting the teeth, has not the smallest appearance of bones: the chine and skull are nothing but a soft gristle which yields to the nail, nor has it any joints, but large cavities filled with liquid fat. Two sorts of flesh are found in it; the one of the usual kind, white, but so soft that it may be dissolved like soap by rubbing between the hands, and reduced to a kind of froth; the other like the flesh of land animals is red, and runs along the sides. The inner cuticle is very tough, and the thickness of a finger. In Norway and Iceland the flesh is cut into rashers, and dried in the air; but the Greenlanders do not much esteem it, and only eat it when it is dry and half putrid.

The natives made such despatch in the dissection of their prize, that I could only catch a glimpse of the entrails. The liver lies in two long lobes, a span broad, through the whole length of the belly, and consists almost entirely of train oil; there is said to be enough of it, in general, to fill two barrels. This animal commonly produces four young ones at a time. When hawled upon the deck of a ship, it deals out such violent blows with its tail as to endanger those near it, and makes it prudent to despatch it immediately. The pieces which have been cut asunder, retain life for several hours; and if they are trodden upon even three or four days after, some motion is perceptible. The angling line must be an iron chain, otherwise they would bite it through. The Greenlanders strike them with an harpoon.

The voracious animal will eagerly fasten upon a dead whale to suck out the fat, and the whalers make use of.

this opportunity to cut out the liver, which they do by means of a crooked knife fastened to a pole. The fish has also a great appetite for human flesh, and will follow a ship for several days in expectation of a dead body being thrown out. It frequently engulphs at one bite, the arm or leg of an unfortunate swimmer.

The Saw-fish, *Squalus Pristis*, has at the end of his snout a thin flat horn, two feet long, and three or four fingers broad, armed on both sides with teeth like a comb. It grows to the length of twenty feet. This fish is the most redoubted enemy of the whale, who is mortally afraid of his attacks. Several of the species join to surround him on all sides, and easily kill him. They eat nothing but the tongue, leaving the rest a prey to other fishes and to sea fowl.

The Ray, (*Takkalikkisak*,) *Raja clavata*, Lin. is caught only in the south. This fish in its conformation resembles the holibut, is a yard and a half long, and upwards of a yard broad. It has also a slender tail, a yard in length, with two small fins underneath, the only ones on the whole fish. The back is grey, and covered with many sharp spines; the belly white and smooth. The mouth, as in the shark, is situated three or four inches below the snout, and above it are the eyes, which it has the power of turning inwards, so as to see through the aperture of the mouth whatever is going on below it.

The chine which is about a foot broad, is nothing but a cartilage, and is winged with cartilaginous fins, half a yard long, strengthened by many joints, and completely covered with flesh, so as to be scarcely distinguishable from the rest of the body. It strikes these up and down in swimming as a bird does its wings. The flesh is said to have no bad taste. Like the shark, it is viviparous.

Besides these, a kind of fish is reported to have been found in the south, which, like the tortoise, is covered with a thick shell, and has a tail and claws. Another remarkable fish, *Macrouros rupestris*, has a large head, a rough scaly body attenuated into a long slender tail, and extremely large eyes. The whole length is

three feet. The Greenlanders call it *Ingminniset*, because it makes a growling noise when it dives into the water.

V. The bloodless fishes may be classed in two divisions, such as are provided with shells, hard or soft, and such as are quite naked and flabby.

1. Round Pouch Crabs, (*Pagurus*,) are plentiful here; they are shaped like spiders, with eight long legs and two pincer claws. The eyes, which are as solid and transparent as horn, are extremely prominent. Instead of teeth they have two broad white bones, with which they cut their food in pieces. They are destitute of a tail. The flesh has somewhat of a putrid taste, whence it is supposed that they live principally upon the carrion of seals and birds. None of the common craw-fish or lobster are found here.

The sea-weed is filled with abundance of small shrimps, which, having grown to their full size, retire from the land into greater depths, where they furnish a repast to the seals.

Blue muscles are found between the rocks in great numbers, where the sea-weed abounds, and are tolerably large and good eating. Small pearls are occasionally met with in this species.

The genuine oyster does not occur, but there are two species of inedible oyster-muscles, one of which is striped with deep longitudinal furrows, and vesiculated; the other is smooth and marbled, yet so that transverse channels may be seen.

Some Harp-muscles, (*Pectines*,) are also found, whose flesh is white and agreeable to the palate; long oval muscles, truncated at one end, of the size of a duck egg; a white species of shell-fish, in shape like a horse-bean; also Razor-shells (*Solen*) so called from their figure; limpets, (*Patella*,) an univalve shell fish, beautifully marbled, which adheres to the rocks, and might, from its autennæ, be classed among the snail tribe; and lastly, a totally blue muscle, the size of a coffee bean, with reticulated stripes. Pieces of a large shell-fish are sometimes picked up among the rocks, which according

to the description of the Greenlanders, should seem to be the pearl muscle, but I never saw them myself.

A multitude of periwinkles (*Helix*) of various colours are found here, but very small, no bigger than a pea. They stick to cliffs by the sea-side, and have an envelope in which they shut themselves up when they fall into the water, or are in any way annoyed. A small long spiral shell, (*Turbo*,) is sometimes found, though rarely.

The sea-acorn, (*Lepas Balanus*,) is however most plentiful. These creatures glue themselves so tenaciously to rocks, sea-weed, muscles, crabs, or the whale itself, that they will suffer themselves to be pulled to pieces rather than quit their hold. The shell is white and shining, and longitudinally striated. It is commonly the size of a walnut, and open above, but is furnished with two moveable valves, which the animal closes at pleasure, and through which it sucks in the sea-water, its sole nourishment. When it basks in the sun out of the water, it puts forth two curved horns plumed with innumerable feathers. These creatures also settle in great quantities on the keel of a ship, whence some, who never saw them in their own country, have imagined that the wood-worm, which is so destructive to ship timber, proceeds from these shells.

I have observed on an old blue muscle, besides the sea-acorn, a number of small snails, from the size of a mustard seed to a lentil, and shaped like *Cornu Ammonis*. The magnifying glass discovered that the scurf which discoloured the muscle was likewise an infinity of minute snails, some of which had fastened also on the ammonitæ.

Of the production of these muscles, which attach themselves so firmly to all substances that a heavy stone may be lifted up by them, it is not easy to give a satisfactory account. A substance resembling sand is said to be seen in spring and autumn floating on the surface of the water, which settles at length on the rocks, and this is supposed to be the spawn of the muscles.

The sea-bug, *Chiton*, has seven shells streaked with yel-

low, and a foot appended to each. The tail is articulated with six smaller scales, and covers two diminutive pair of pincers. The head is like that of a beetle. This insect, which is no bigger than a finger-joint, torments the whale and other fishes almost to madness, so that they will leap out of the water in their fury.

The Whale-Louse, which I have not seen, is of triangular form, has six scales, and falcated feet, by which, with the assistance of four horns projecting from the mouth, it bites so deeply into the skin of the whale, and tears out such large pieces, particularly from beneath the fins, and from the lips, that the integument has the appearance of a wasp-eaten apple.

Several small testaceous insects resembling worms or grubs are also not uncommon. I found one shaped like a caterpillar, and scarcely as large as the finger nail, which sticks to the rocks, and with its eight marbled shell makes a beautiful figure.

Many other kinds still more singular probably lurk in the deep. Some anglers drew up one shaped like a wisp of straw, or a caterpillar, with innumerable legs; at another time, one which resembled an ox's heart.

2. Of the Mollusca, or flabby, shell-less insects, I met only with the *Sepia*, cuttle, or ink-fish, and this I soon threw down again, disgusted with its ugliness. It is about a span long and two inches thick. The body looks like a leathern purse, into which the animal has probably the power of drawing in and concealing his monstrous head, the most wonderful part of the fish. Besides two huge eyes, it is furnished with a snout like the beak of a bird, close to which are eight incurved antennæ, the two middlemost three inches long, the others only half so long, and all set with small globular teeth. Like the body, these horns consist of a slimy semi-transparent substance of an ash-grey colour. A jet-black fluid shines through the belly. This is given it as a means of defence against its voracious enemies the fishes. When hotly pursued by them, it ejects this liquor, which makes the water so muddy, that all vision is totally interrupted. This juice burns like fire

on a man's hand. Owing to its glutinous substance, the creature seems to have the power of assuming different shapes.

I myself observed in the spring, numbers of these animals left by the tide on a muddy strand, to all appearance the young brood of the Sepia, which assumed at one time a circular, at another an elongated figure. On plunging into the water, they lanced out their horns, and fins might be distinguished close to the head, with a long tail, which had a very vivid motion. All these were immediately drawn in as soon as the animal touched land.

The Sea Urchin, *Echinus marinus*, is armed at all points with sharp spines. The star-fish, *Asterias*, is also found here, sometimes with five, sometimes with six spikes or rays. Both these genera have the mouth on the under side, and the vent above: they are covered beneath with more than a thousand small antennæ.*

A white slime, sometimes round, sometimes oblong, sometimes of a serpentine form, is often seen floating on the sea. This has received the name of the *whale's food*, and it is believed that this and some small medullous worms constitute the whole nourishment of the proper Greenlandic whale. The Sea Nettle, *Medusa aurita*, so called because of its caustic and venomous nature, is much the same kind of substance, but larger, like a small plate. It did not come under my observation. These viscid substances are living creatures, which derive their aliment from the sea, and transform themselves into a variety of shapes. One of the kind which I examined more narrowly, was as large as a shilling in the water, white and transparent. When taken into the hand, it flowed into a thin jelly, and eight bright red streaks appeared diverging from a centre; on being lifted up by this point, it assumed the form of a hollow octagonal cap, with its eight seams lined with red.

* For a farther account of these wonderful animals, See *Pontop. Nat. Hist. of Norway.* Vol. ii. ch. 7.

Amongst the *Zoophytes*, which grow like plants from some stone or sea-weed, while they imbibe nutriment like animals, I have seen an extremely tender myrtle or fir-shaped plant, with numerous interwoven branches. Another species which I found among a heap of bernacles, resembled a fir-apple, half an inch long, one animal growing out of another like the leaves of the Indian fig: both were of a snowy white, and might have been taken for mere plants, if the bowels had not appeared on their being crushed.

In stormy weather the sea casts up a kind of nest entangled in the sea-weed, of the bigness of an apple. It is composed of a number of light, yellow, and semi-transparent insects, which resemble strings of beads, or the grains of Indian corn, or maize.

Thus a regular gradation is observed in all the works of nature. There are vegetables, such as the sensitive plant, which appear to possess life. Again, we find living creatures, like the zoophytes, which are apparently as inanimate as vegetables.

From the lowest step in the scale of creation, each creature approaches progressively nearer to perfection, till the highest falls not very far short of man.* This gradation may plainly be traced in the productions of the ocean, from the zoophytes and shell-fish which have no power of changing their place, to those whose character of fish merges into that of a land animal.

* *Professor Sultzer*, of Berlin, has many curious thoughts upon this subject in a piece, the title of which has slipped my memory.

CHAPTER III.

Cetaceous order of Animals. — I. *Difference between these animals and fishes.* — II. *Number and variety of Whales. Greenland whale and North-caper.* — III. *Fin-fish, Jupiter-fish, Hump backed whale and Knotted-fish.* — IV. *Narwhal.* — V. *Cachalot.* — VI. *White-fish, Grampus, Dolphin, and Sword-fish.*

I. We next come to speak of the cetaceous order of animals, which having their interior conformation similar to that of quadrupeds, should be carefully distinguished from the fish tribe. Being furnished with lungs, they have need of respiration, and consequently cannot remain long under water. They are viviparous and suckle their young like land animals. Their fins are not cartilaginous as in fishes, but are composed of bones, sinews, and flesh, covered with fat and skin; and the tail, which is of similar materials, strong and tendinous, is not vertical but lies horizontally on the water. Over their flesh, which is red and full of blood, there is a layer of fat, from three inches to a yard in thickness, covered with a tough, thick skin, and in some species with a hairy cuticle. This fat not only serves to facilitate their swimming, but is requisite to maintain their vital warmth, while traversing the watery element in the frigid zone.

II. The different kinds of whales dispersed through the ocean are so numerous that no author has hitherto given a specific arrangement of them all. Some have enumerated twenty-four species in the North Sea only. According to Pontoppidan their number, especially near the shore of Norway, has been so great that the sea between Stavanger and Drontheim appeared like a large town, with smoking chimnies, from the breath expelled from the lungs of more than a thousand whales. In our arrangement and description of them we shall be guided chiefly by the judicious and luminous treatise of Anderson.

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1. The principal among those which have a smooth back, and horny lamellæ, or whalebone, instead of teeth, is the large Greenland whale, *Balæna Mysticetus*, to catch which so many ships are yearly fitted out.* This species is at present only found from fifty to eighty feet in length, though formerly, before it became an article of commerce, and had time to reach its full growth, it has been seen considerably more than two hundred feet long.† Its shape is remarkably uncouth, as the head constitutes the third part of its body. It has no dorsal fins, and only two lateral ones, situated near the head, and from five to eight feet long; with these it rows forward its huge bulk with surprising velocity. The tail is from three to four fathoms broad, curved upwards at each extremity, and is the whale's defensive weapon with which he can dash the stoutest boat to pieces at a single stroke. He is however naturally timid, flies at the least noise, and never molests any one till attacked. The skin is smooth, black on the back, and white beneath; but in several places, particularly on the fins and tail, it is often marbled with various colours. On the head there is a protuberance perforated by two apertures, like nostrils, through which the fish breathes, and, especially when wounded, spouts water with a rushing noise like the sound of a tempest, which may be heard at a league's distance. Between the nostrils and the fins are situated the eyes, which are no larger than those of oxen, and furnished with lids. It has no auricles; but when the head is stripped of the upper cuticle, two small apertures appear just behind the eyes, out of which sailors extract a bone, called the whale's trumpet, said to be beneficial in cases of deafness. In the place of teeth, the above-mentioned lamellæ, vulgarly called whiskers, are appended to the upper jaw, generally about three hundred and eighty

* See Marten's *Voyage to Spitsbergen*, and Zorgdrager's *Greenland Fishery*.

† *Pliny*, as is well known, estimates their length at nine hundred and sixty feet.

on each side. Of these seven hundred, only five hundred are of the proper dimensions for use. Some fishes that are quite full grown, may have a thousand or more pieces of whalebone of different sizes. They are disposed in a regular series, like organ-pipes, the smallest on each side, and the largest, about two fathoms long, in the middle, and are sheathed in a cavity of the lower jaw. A thick covering of long hair like horse-hair prevents them from wounding the tongue, and also the slimy food,* which the animal sucks in with abundance of water, from flowing out again. The tongue consists entirely of transparent spungy blubber, and is sufficient alone to fill seven large barrels. The whale generally produces only one at a birth, but sometimes two, hiding them, when pursued, under its fins. Under the skin, which is about an inch thick, and covered with a thin integument like parchment, lies the blubber from six to twelve inches in diameter, and near the under lip about two feet. The fat of a full grown whale is sufficient to fill two or three hundred barrels. Their flesh is very coarse, but is said to taste like beef. The Greenlanders devour it with avidity, especially that of the tail, which is most tender, and filled with sinews. These are used by the natives for thread. The Icelanders also eat the tail after having soaked it in their *syre* or sour whey. Horrebow remarks, that only the flesh of such whales as have teeth, and live on other fish, is rancid and unpalatable. Their bones are hard, exceedingly porous, and full of train.

It might be imagined that a creature of such enormous bulk would consume vast numbers of smaller fishes; but as we observed before, its swallow will not admit any thing large, being only four inches across; and as far as we know, the principal food upon which it thrives and fattens is the slimy substance called *Whales' food*. It sucks in this aliment through the whalebone, ejecting the water at its nostrils. Whales' food is most abundant in the neighbourhood of Spitzbergen,

* Sepiæ and other marine molluscæ.

Nova Zembla and Greenland, and is sometimes so plentiful there, that the water near the surface is quite thick with it, like that of ponds filled with frogs' spawn. The whales accordingly never wander far from these seas. The numerous vessels of various nations engaged in catching them, sometimes bring home the blubber of from one to two thousand whales, not to mention those which though wounded, escape, so that their number is perceptibly decreasing. A species of whale called by Zorgdrager, the island whale, was formerly very common, but has of late entirely disappeared, in all probability induced by the throng of vessels to retire nearer the pole.

2. The North-caper,* so called from the most northern promontory of Europe, near which is its chief resort. They outwardly resemble the Greenland whale, but are not so large, have less and worse blubber, shorter whalebone, and a more capacious swallow. Their food consists chiefly of herrings, which they collect by a sweep of the tail, and then engulph by hogsheads with their monstrous jaws. The North-capers follow the shoals of smaller fishes, but seldom venture further south than Iceland, Norway or Shetland, for fear of being stranded on the shallows.

3. The Fin-fish, *Balæna Physalus*, is rounder, longer, and less bulky than the Greenland whale, but more agile, fierce, and dangerous, in striking with its tail. Fishers accordingly seldom meddle with it, as its whalebone is short and knotty, and the blubber scanty and of a bad quality. The Greenlanders on the contrary prize it most, on account of the abundance of its flesh, which they say has a pleasant taste.

3. The Jupiter-fish or pikeheaded whale, *Balæna boops*. The Spanish whalers call it Gubartas from an excrescence near the tail. It tapers more both towards the head and tail, than the great Mysticete. The skin of its belly is plaited into numerous longitudinal wrinkles, of which the internal surfaces are white.

* Probably the Balæna musculus.

To this whale, large quantities of the sea insects, vulgarly called bernacles, are said to adhere.

5. The Hunch or Hump-backed whale, instead of a fin has a tubercle on its back, like a depressed cone, the size of a man's head.

6. The Knotted fish, *Balæna gibbosa*, has many protuberances on its back, and comes nearest to the Greenland whale both in shape and quantity of blubber, but its whalebone is whitish and of little value.

Near the Bermuda islands, whales are caught which the English call cubs, from the numerous wens on their heads. They are longer than the Greenland whale, tapering towards the tail. Their blubber is scanty and indifferent.

7. The Narwhal, *Monodon Monoceros*, is generally about twenty feet long, has a smooth black skin, with a pointed head and a narrow mouth. From the left side of its upper lip projects a round, straight, and spirally wreathed horn, which is about ten feet in length, and as thick as a man's arm, composed of white solid bone, like ivory. On the right side of the snout a lesser horn, about a span long, lies imbedded in flesh; this may perhaps increase, and supply the place of the larger when it has been accidentally broken off.* These horns are probably used by the Narwhal, as defensive weapons, and instruments to tear the sea-weed, which it feeds upon, from the bottom, or to bore the ice in order to take breath. Formerly they were sold at an exorbitant price as invaluable curiosities, and relics of unicorns, but since the commencement of the Greenland fishery, they are known to be so common there, that the natives of the country use them as rafters for their houses. Some Narwhals have been caught which had two horns of equal length, but such are very rare.

The Narwhal has two nostrils in the bones of the skull, which unite in one external aperture. They have good blubber, swim rapidly, though furnished with only

* It is related that the broken horn of a Narwhal was found sticking in the side of a vessel, which had just before received a vehement shock, as if she had struck on a rock.

two fins, and can only be struck when they are crowded together, and impeded by the collision of their horns. Sailors imagine them to be harbingers of the Greenland whale.*

8. The Cachalot or Spermaceti Whale, *Physeter Macrocephalus*. There are several varieties of this species, some black, others of a dark green colour; some have their teeth blunt, others sharp and falcated. They also vary in bulk, and are from fifty to one hundred feet in length. The head is disproportionately large, constituting nearly one half of the animal, and is not attenuated towards the mouth, but quite blunt, presenting almost a flat surface at its extremity. Its top is broad, like the lid of a boiler, but the sides converge towards the under-jaw, in the shape of a musket stock, or an inverted shoe-last. The spiracle is differently situated from those of other whales, being between the eyes. It has a small pointed tongue, and a less mouth than the Greenland whale, but an enormous swallow, sufficiently capacious to engulph an ox. A cachalot, when wounded by a ball, disgorged in its anguish, a shark four feet in length, and several bones a fathom long were found in its maw. Its upper lip is rounded and much larger than the under. It has from thirty to fifty teeth in the lower jaw, six inches long and as thick as a man's arm, with cavities in the upper for their reception. Some blunt teeth have in rare instances been found also in the upper jaw. On its back, there is a callous tubercle, and by the side of each eye a fin, near which the fish is easily wounded. The skin on the rest of its body is tough and impervious. Its blubber is about half a yard thick, and that of a full grown cachalot is sufficient to fill two hundred barrels.

The monstrous head of this whale is the principal store-house of the healing spermaceti. It is in some covered with a strong bony lid, in others with a thick tough skin. This useful drug is the brain, which is contained in twenty or thirty cells, and in its natural

* See Note ix.

receptacle is as clear as oil; but after being taken out, it concretes into a substance resembling sour milk. Small vesicles are interspersed throughout the blubber, filled with the same fluid; indeed it circulates through the whole body, by means of an artery as big as a man's leg, and branching out in numberless ramifications. The spermaceti obtained from one cachalot will sometimes fill twenty, nay even fifty barrels.*

Of the Dolphin genus, which have teeth both in the upper and under jaw may be noticed:

9. The White Fish†, so called from its light colour, is only three fathoms in length, but bears a near resemblance to the Greenland whale, except in having a longer head, and the side fins larger in proportion to its bulk. It has one spiracle situated in the neck, which divides at a small depth into two oval passages, each from two to three inches in diameter. The skin is white, about an inch thick, and somewhat wrinkled. Its blubber, which lies about six inches in depth, will fill four barrels. Its flesh is red like beef and of a similar taste. The chief resort of white fish is near Disko, and at Godhaab they are caught in great numbers by the Greenlanders. Whale-fishers do not think it worth while to pursue them. Though I had no opportunity of examining one entire, as the Greenlanders cut them up previous to bringing any on shore, I however ascertained the falsehood of the notion, that they have no teeth in the upper jaw. In the under jaw, I counted twelve blunt teeth, in one side of the upper eight, and in the other nine. Those in the under jaw are locked into the upper ones, which are curved and excavated, with the exception of the three farthest back on each side, which have no corresponding teeth below, and are pointed.

10. The Grampus, or Orc, *Delphinus Orca*, has a blunt snout, is from fifteen to twenty feet long, black above and

* *Anderson* gives a more minute account of these remarkable animals, several of which were stranded in the mouth of the Elbe, and several near the shores of Holland.

† Possibly a variety of the Delphinus Leucas.

white beneath. In other respects it resembles the whale. It is probably this species which the Icelanders call spring-whales from their leaping.

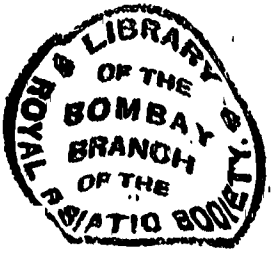
11. The Porpoise, *Delphinus phocæna*, is like the grampus, except in having a more pointed snout, resembling that of a hog. The dorsal fin is bent towards the tail like a crescent. The flesh is relished, not only by the Greenlanders, but also by many European fishers. These animals, on the approach of a storm, are seen to frisk and gambol round ships, as if striving in a race. Indeed it has been observed of many species of fishes, that when a tempest lours they collect in large numbers near the surface of the water, probably from an instinctive dread of being cast on rocks or sand-banks by the raging billows. During an eclipse of the sun or moon their motions generally betray unusual anxiety and perturbation.

12. The Dolphin, *Delphinus Delphis*, also called tumbler from its leaping and flouncing in the water, differs from the porpoise in being of a more slender shape, and having a sharper snout. Both species are called by the Greenlanders and Norwegians *Nisa*. It must be observed that the Dolphin of the Southern ocean is another variety.

13. The Sword-fish,* Greenland, *Tikagulik*, derives its name from the dorsal fin, which is about two yards long, runs to a point, and is bent towards the tail. It is however more like a blunt arrow than a sword. It is about seven fathoms long, and has very sharp teeth. These fishes collect in great numbers round the large Greenland whale, tear huge pieces of flesh from his body, and never desist till they have killed him. From this practice they have been called whale-killers. They are so strong that they will drag off in their teeth the carcase of a whale, though several boats are towing it in a contrary direction. The Norwegians call them Fat-cleavers. There is another variety of sword-fish which the Greenlanders call *Ardluit*. These are only five fa-

* Probably a species of Delphinus Orca.

thoms long. The seals, among whom they commit dreadful ravages, fly their approach. They are so expert in seizing these animals with their teeth and fins, that an ardluit has sometimes been seen loaded with five seals at once, one in its mouth, two under the fins, and another on its back. The Greenlanders catch them like whales, and are very fond of their flesh.



CHAPTER IV.

Seals. — I. *Of Seals in general.* — II. *Five particular species of seals.* — III. *Walrus.* — IV. *The places frequented by seals, and their peregrinations.* — V. *Seals indispensibly necessary for the Greenlanders.* — VI. *Manner of catching them used by Sailors.* — VII. *Dutch Whale Fishery.* — VIII. *Greenlanders' Whale Fishery.* — IX. *Sea Monsters.*

I. It remains to give some information concerning the different varieties of those four-footed amphibious animals, called seals, or *phocæ*. They all have a strong, tough, hairy skin like land animals; but the hair is very short and has the appearance of being rubbed with oil. The fore legs are short, stand downwards, and act as oars; the hinder ones, which are situated nearly in a line with the body, on each side of a short tail, serve both for steering and accelerating their motion. They have five toes on their feet, each consisting of four joints, and terminating in a sharp claw, with which the animal clings to ice and rocks. The hinder-feet are palmated, having the toes connected by a membrane, which the seal extends when swimming. Their proper element is the water, and their nourishment all kinds of fishes. They are fond of basking or sleeping in the sunshine on the ice or shore, snore very loud, and being very sound sleepers, are at such times easily surprised and killed.

Their gait is lame, but they can nevertheless make such good use of their fore-feet, and take such leaps with the hind ones, that a man cannot easily overtake them. The head is pretty much like that of a dog with cropped ears. In some species it is rounder, in others more pointed. Their cry is somewhat similar to that of a

wild boar, and their young ones make a piping noise like the mewing of a cat. The mouth is armed with sharp teeth, and the lips furnished with a strong beard like bristles. They have two nostrils, and rise to the surface every quarter of an hour to take breath; large fiery eyes, with lids and eye-brows, and two small apertures for ears, without any external projection. Their body tapers towards the head and tail, a formation which facilitates their progress through the water. At first sight they most resemble a mole. Their blubber is from three to four inches thick; and the flesh, which is tender and greasy, eats pretty much like that of a wild boar. It is not so oily and rancid as the generality of sea-fowl, and would be eaten by most Europeans with a greater relish, were they not disgusted by the name. Some species of these animals are met with almost in every part of the ocean. A Dane once assured me, that he had seen seals on the shores of Jutland, which had instead of hind legs a fish's tail with fins. This exactly corresponds with Pontoppidan's description of them in his Natural History. Anderson* informs us, that seals have been found in the fresh water-lake Baikal, in Tartary, which is sixty degrees from the ocean. They had probably found their way down the river Jenissei, and gradually became accustomed to live without the salt water. The seal that was caught in the Elbe near Magdeburg, is still fresh in remembrance.

II. Five species are taken by the Greenlanders, which, as to the form of their bodies, are nearly alike; but differ in size, in the quality of their hair, and in the shape of their heads.

1. Kassigiak, the Pied Seal, *Phocabicolor*, is a long seal with a thick head. Its colour is a ground of black, freckled with white spots. Seals of this species are caught in greatest numbers at Baal's River, throughout the whole year. The skins of their young ones afford both Greenlanders and Europeans their best cloathing; and if black on the back, look almost as rich as velvet.

* Page 235.

They are exported in great numbers, and worn as waistcoats. The older the animal is, the larger are its spots. Some skins resemble those of panthers, and are used as horse cloths. A full grown seal of this species is about two yards and a quarter in length.

2. The Harp Seal, *Phoca Groenlandica*, (Attarsoak,) has a more pointed head, a thicker body, more and better blubber than the former, and when full grown, measures four yards in length. It is then generally of a light grey colour, and has a black mark on its back like a double crescent, with the horns directed towards each other. There is also a blackish variety without any mark. All seals change colour yearly, while growing; but the alteration is most conspicuous in this species. The Greenlanders distinguish the various stages of its growth by different names. They call the fœtus *iblau*, which is quite white and woolly. In the first year it is named Ittarak, and is of a cream colour: in the second Atteitsiak, grey: in the third Aglektok, coloured: in the fourth Milektok, spotted: and in the fifth, when it is full grown, and gets its distinguishing mark, Attarsoak. Their skin is stiff and strong, and is used to cover trunks. The Greenlanders curry the hair off in dressing the skin, leaving a little fat inside that they may dress it the thicker, and then cover their boats with it. The undressed hides are used for tent skins; and when they have nothing else, for clothes. This seal yields the most and best blubber, from which train oil is melted not much thicker, nor more fetid, than stale olive oil.

3. The Rough Seal, *Pheca hispida*, (Neitsek,) does not differ much from the former, except that its colour is browner, inclining to a pale white. Its hair does not lie smooth, but is rough and bristly like that of swine. Men's clothes are made of its skin, the hair being generally turned inside.

4. The Hooded Seal, *Phoca cristata*, is called by the Greenlanders *Neitsersoak*, or great Neitsek, but in reality differs very much from the last mentioned species. Besides its superiority in size, it has under its hair a short thick set

coat of black wool, which gives the skin a beautiful grey colour. The forehead is furnished with a thick folded skin, which the animal can draw over its eyes like a cap, to protect them from stones or sand, driven about by the surf in a storm.

5. The Great Seal, *Phoca barbata*, Utsuk, is the largest species of seal, and about four ells long, with blackish hair, and a thick skin, out of which the Greenlanders cut thongs half an inch thick, for their seal fishery.

III. The Walrus, or Sea-Horse, *Rosmarus*, may be classed among the Seals, which it resembles in the form of its body. From its head, which is not pointed like a seal's, but broad, blunt, and armed with two long tusks, it might aptly be denominated the sea-elephant. This species is only caught in the south.

The whole animal may be about nine yards long, and the same in circumference round the breast.* It weighs about 1000 pounds. The skin is about half an inch in thickness, much shrivelled, especially on the neck, where it is very gristly, and twice as thick as on the rest of the body. The Greenlanders like to eat it raw. The fat is white, solid like bacon, about six inches thick; but the train which it affords is neither so good, nor so abundant as that produced by seal's blubber, owing to its tough vesicles. Both fore and hind feet are longer and more clumsy than those of the seal. The toes have joints about six inches in length, but are not armed with sharp claws. Its mouth is so small that a man can with difficulty thrust his fist into it, and the under lip, which is of a triangular shape, hangs down between the two tusks. On both the lips, and on each side of the nose, there is a stripe of spongy skin, about a hand's breadth, stuck full of monstrous bristles, like treble twisted cord, as thick as straws, pellucid, and about six inches in length. These give the animal a grim but majestic aspect. The snout is not prominent: the eyes, which

* Our description of this creature is taken from the cursory inspection of one, while the Greenlanders were cutting it up.

have no lids, and are not larger than those of an ox, I I could not at first discern. A Greenland boy seeing my perplexity, pressed the skin, and they sprung forth to view immediately. I afterwards found that I could press them in and out about an inch, and concluded that the animal was enabled to draw its eyes into a safe receptacle, to protect them from the violence of storms. The ears are situated in the neck; their apertures which are in the back part of the skull, without any external projection, are scarcely perceivable. It has no cutting teeth, but nine broad concave grinders, four in the upper, and five in the under jaw. It cannot therefore catch and chew fishes like the seal, for the two long tusks bending downwards over its mouth would rather impede than assist it in fishing. These tusks are exceedingly compact, of a finer grain than ivory, and very white, except in the middle, where they are of a brownish colour, like polished maple. The extremities inserted in the skull, are somewhat hollow, rather compressed, and, in most animals, full of notches. It is a rare case that both tusks are found perfectly whole and sound. The right tusk is about an inch longer than the left. Its entire length is about twenty-seven inches, of which seven lie within the skull. The circumference at the bottom is about eight inches. Close to the head the tusks are separated by about four inches, but diverge to the distance of ten, and are somewhat bent at the points. Each tooth weighs about seven pounds, and the whole cranium preserved in the Brethren's Museum at Niesky about twenty-four pounds.

The use the walrus makes of his tusks is, probably, partly to detach the muscles and sea-weed which it lives upon, from the rocks, partly to lay hold of rocks and ice masses in order to drag along his huge unmanageable bulk, and partly to defend himself against the white bear and the sword-fish.

Martens conjectures that it lives chiefly on sea-weed, because its excrements resemble horse dung. The same author is also of opinion that flesh forms a part of its food, from its seizing the skin of a whale which was

thrown overboard, and tossing it up and down in the water. On the contrary, the Greenlanders say that it seizes birds in play with its tusks, draws them under water and throws them up again, but never eats them.

Few walrusses are seen in Davis's Strait, but more near Spitsbergen, Nova Zembla, and between Waygat and the river Obe. Tusks have been found on the shores of Kamtschatka much heavier than any met with in the Greenland seas, and weighing from twenty to forty pounds. * They were formerly killed in great numbers with harpoons while sleeping on the land, principally for the sake of their teeth, from which many useful and ornamental articles are manufactured. But since they have learned to know man as their most dangerous enemy, they have become very shy, and are said to place a watch, and faithfully assist each other. When wounded, they dive under the water, and sometimes overturn the boat or bore it through with their tusks.

IV. But to return to the seals. Few are found near Spitsbergen, and most on the shores of East Greenland. Martens remarks that whales and seals are seldom found in great numbers together, because the latter consume all the nourishment. Johnston relates of them the singular circumstance, that in warm climates they commit depredations upon vineyards and orchards near the shore; also that they may be caught, tamed, accustomed to live on land, and even to receive food from the hand of their master. †

In Davis's Strait, the pied and harp species are most abundant. The former are met with all the year round, though not always in equal numbers. They cannot easily be caught by single Greenlanders, except when young and helpless, on account of their vigilance, but must be surrounded and killed by several in company. The rough and great seals, (*Neitsek* and *Utsuk*,) emigrate twice a year out of these parts. Their first recess takes place in July, and their return in September. It

* See Gmelin's *Voyage to Siberia*, vol. iii. p. 164.
† See Charlevoix *Voyage de l'Amérique*. Let. VIII.

is probable that they go to other countries in quest of food, as they do not set out in a body, and come back very fat. The second emigration is in March, to cast their young, with whom they return in the beginning of June; but in very poor condition. For the last expedition they seem to have a fixed time, like birds of passage, and make choice of a route that is free from ice, frequently serving as guides to ships near Spitsbergen. After setting out from the south, their progress northward seems to be in direct proportion to the time; the first twenty days they are known uniformly to advance eighty or one hundred leagues. It may be calculated with tolerable precision what day they will arrive at Fredericshaab, Godhaab, or any other settlement along the coast, but the place to which they retire is unknown. It is certainly not America, as they do not steer their course westward but northward, and are never seen in the open sea at this season. Nor do they stay in the north to tend their young among the uninhabited and peaceful rocks, for they are always seen returning from the south. They must therefore either find their way through some narrow strait, as the Ice-fiorde in Disko-Bay, or Sir Thomas Smith's Sound, lat. 78°, or else through some unknown ocean under the pole, to East Greenland, and then round Staatenhuk back to the west coast.*

V. No race of animals is so indispensably necessary to any other nation as are seals to the Greenlanders. The sea is their patrimony, and the seal-fishery their only harvest. The flesh of seals is their chief and favourite repast, and the skin of these animals furnishes them not only with clothing, but with materials for constructing their boats and houses. The blubber is not only an article of food, but also supplies them with oil for lamps, which they use for lighting and warming their dwellings, as well as the purposes of cookery: for were wood ever so abundant, the formation of their houses would preclude its being used for firing. They also soften their dried fish by soaking them in the train, and finally

* Horrebow remarks, that those species of seal which emigrate periodically from Greenland, are seen in December on the north coast o Iceland, and leave it again in March.

barter it for all kinds of necessaries. Of the entrails they make their windows, curtains for their tents, and part of the bladders tied to their harpoons. The maw is manufactured into bottles to hold train oil. Formerly, before iron was imported, all sorts of weapons and utensils were made of their bones; and not even the blood is wasted, but boiled with other ingredients, and eaten as soup. No one can pass for an accomplished Greenlander who is not skilled in catching seals. All their thoughts, exercises, and education, from childhood to manhood, are concentrated in this difficult and dangerous occupation.

VI. Sailors frequently kill them while sleeping in herds upon the ice. The common method is to set up a shout, when the seals, awaking and stretching out their necks, are stunned by a blow on the nose. Before they recover from the first stroke, the men hasten round again and dispatch them. In this way, many vessels that are unsuccessful in the pursuit of whales get a good freight of seal's blubber and skins, which when tanned make valuable leather. It is said, that the Icelanders can catch from sixty to two hundred in a day, in nets; but this method has never been practised in Greenland. They are very tenacious of life, and frequently turn round to bite those who are flaying them. Many vessels, called *Robbenschlæger*, are annually sent to Spitsbergen to catch them.

VII. The following brief account of the process in catching Whales, is taken by word of mouth from a missionary, who was detained on board a Dutch vessel, during the fishery, near Disko. Whales are taken in Disko Bay about April. When they are not to be met with there, the vessels follow them all along the American coast to their haunts in Hudson's Bay, and towards the end of summer into the south sea.* The chief fishery near Spitsbergen, is in May and June, after which the whales retire farther east. As soon as a whale is either seen or heard, a shallop, with six hands on board, immediately makes up to him, taking

* See Ellis, p. 349.

care to approach his side near the head. Five or six boats are always in readiness for this purpose. When the fish rises to take breath, and, as is generally the case, remains a short time on the surface, the boat rows up to his side, and the harpooner pierces him somewhere near the fin. They then row back with all possible speed, before the whale can feel the thrust, and overset or crush the boat by a blow of his tail. The harpoon is a triangular barbed piece of steel about a foot long, and fastened to a shaft. As soon the fish perceives the pain, it darts down to the bottom: the rope, which is about half an inch thick, a hundred fathoms long, and made of fresh hemp, then flies off with such rapidity, that if it by any means get entangled, it must either snap in an instant, or overset the boat. Nine rolls of rope lie in the bottom of each shallop. One man is stationed to attend to the line lest it should get ravelled; and another to pour water on the place where it rubs on the boat's side, in order to prevent it from firing by the excessive friction. If he is not mortally wounded, he may flounce about in the deep for an hour, and drag after him several thousand fathoms of line; for as soon as he is struck, the other boats hasten to the spot with a fresh supply. The velocity of his motion equals the flight of an eagle, and the boats make after him with all possible despatch. Should he retire under the drift-ice they follow him; but when he dives under a large field, there is only one alternative, either to draw out the harpoon by main force, or to cut the line. If he comes up a second time, they strike him with several more harpoons, and then despatch him with lances. As soon as he is dead, he rises to the surface, with his belly upwards.

Meanwhile, the ship uses all possible speed to join the boats which have the whale in tow. As soon as he comes up, they cut two deep slits in the blubber, through which they pass a cable, and tie him to the ship's side. The first thing to be done is to row a shallop into his jaws, and cut out carefully, with long crooked knives, the whalebone barders from the gums. They only take five hundred of the largest, which are worth as much as

all the blubber. After having taken out the tongue, they cut off the fat from the body with long knives, in large quadrangular pieces, begin[illegible] both at the head and tail at once, and haul it upon deck with pullies. It is there cut into smaller pieces, and stowed in the steerage still the fishery is over. The tail and fins are cut off whole, and reserved for making glue.

Forty or fifty men mutually assisting each other, will strip a whale of its blubber in four hours. As the body of fat progressively diminishes, the ropes are removed towards the middle, and the fish turns round of itself. When the last ring of blubber is cut off, the carcase loses its buoyancy, and is committed to the deep with a joyful huzza from the whole crew. After a few days it bursts, rises to the surface, and affords a plentiful repast to sea-fowl and white bears. If the cutting up of the whale is deferred on account of the turbulent weather, or to catch more fishes, it swells gradually with a humming noise, and at last bursts with a vehement explosion, ejecting from its entrails a filthy scarlet fluid which has an abominable stench.

When the fishery is over, they retire into a harbour or to a large area of ice, in order to gain more room for cutting up the blubber. After having taken it all out of the hold, they strip off the skin, which is thrown into the sea, and afterwards gathered up and eaten by the Greenlanders. They cut the blubber into small oblong pieces, lower it down into the hold in leather bags, and fill one vessel after the other. While the latter work is going forward, the deck swims with train above shoe-top; this is laded up or caught in pails at the gutters, and poured into the casks. What leaks out of the barrels is the finest, and is called clear train, and that which is melted out of the bulk of the blubber, brown train.* The dregs are comparatively very trifling,

* Concerning the Etymology of this word, which is nearly the same in Russian, Icelandic, Norwegian, and German, and all languages derived from them; nay even in Greek, Hebrew, and Arabic, *Anderson* makes some curious remarks. See his account of Iceland, p. 99.

and one hundred barrels of blubber will generally yield ninety-six of oil.

VIII. Of the whale-fishery of the Greenlanders, it is to be observed that the proper whale and Narwhal, are only caught in the north; the Cachalot and smaller species in the south also. Their method of taking the Greenland whale is as follows: all the natives who engage in the pursuit put on their best clothes; for, according to a saying of their sorcerers, if any one of the company wore a dirty dress, especially one contaminated by a dead body, the whale would fly their approach, and even though killed would sink to the bottom. The women are forced to accompany the expedition, partly in order to row, partly to mend the men's clothes and boats should they get torn or damaged. They assail the whale courageously in their boats and kajaks, darting numerous harpoons into his body. The large seal-skin bladders, tied to these weapons prevent him from sinking deep in the water. As soon as he is tired out they despatch him with short lances. The men then creep into their fishing dress, which is composed of seal-skin, and has shoes, stockings, gloves and cap, all in one piece. Thus equipped they jump upon the whale, or even stand in the water by his side, buoyed up by their swollen dress. They cut off the blubber with their uncouth knives, and though provided with such poor instruments, are very expert in extracting the whalebone from the jaws. The former operation is a scene of the utmost confusion. Men, women, and children, armed with pointed knives, tumble over each others backs, every one striving to be present at the sport, and to have a share in the spoil. It is a matter of wonder to a spectator, how they avoid wounding each other more frequently. However, the scuffle seldom ends without bloodshed. The smaller species of whales, they catch like seals, or drive them into bays, till they run aground.

IX. As to the non-descript sea-monsters so often talked of, few creditable persons have had ocular evidence of their existence. But what to think of the following

relation given by such a worthy man as Mr. Paul Egede,* it is difficult to decide. It is concerning a prodigy, which he saw on his second voyage to Greenland in the year 1734, in the latitude of Godhaab, and which, from his description, might be called a sea-dragon. "On the sixth of July," says he, "a frightful sea-monster made its appearance, which raised itself so high above the surface of the water, that it overtopped our main sail. It had a long pointed snout, through which it respired like a whale, and instead of fins, large broad paws, resembling wings. The skin appeared to be scaly and very much wrinkled. Its lower extremities were those of a serpent; for when it plunged into the deep, it threw its tail a ship's length out of the water. From what we saw of it, we calculate that it might be about as thick as our vessel, and twice her length. In the same evening, we had squally weather, and the next day a storm." This reminds us of the enormous Sea-serpent, which credible persons tell us is seen in the Norwegian seas in July and August. They seldom make their appearance, and never, except in a perfect calm. Their length is estimated at a hundred fathoms, and their thickness at about two yards. Their convolutions, which are from twenty to a hundred, look like large hogsheads floating on the surface of the water. The northern poet, Peter Dass, has a simile, in which he compares them to a hundred heaps of manure, laid in order on a field, and gives them the epithets of Behemoth and Leviathan. The head is said to resemble that of a horse, and the neck to be furnished with a long white mane.

Both Mr. Hans Egede and Thormodor Torfæus† speak of the *Merman*, which has a head enveloped in a skin, resembling a monk's hood, and a nose, mouth, and eyes, like a man. It is generally believed, that one of these creatures, three fathoms in length, was found dead on the shores of Norway. The same authors

* See his account of Greenland, p. 6.

† See Description of Greenland, p. 85, and Historia Norvegiæ and Groenlandiæ.

maintain the existence of the mermaid, which has black lank hair, a woman's breast, long arms, hands with webbed fingers, and a fish's tail. From these descriptions we are led to conjecture that the depths of ocean, as well as the desarts of the land, contain animals which, in the structure of their bodies, ape the human form.

But the most formidable and surprising of all sea-monsters, real or fabulous, is the far famed Norwegian *Kraken*, or *Hafgufa*, which no one professes to have seen entire. When fishermen, in a place known to be of eighty or a hundred fathoms, find only twenty or thirty fathoms water, and moreover perceive an unusual quantity of fishes, which this creature is said to allure by certain pleasant exhalations from its body; they conclude that they are over a kraken. If after securing a good draught of fishes, the soundings gradually diminish, they argue from thence that the monster is rising, and take to speedy flight: presently, to the amazement of all spectators, large ridges like rocks are seen to rise above the water, covering an area of about a square mile, and stuck full of long lucid spikes which thicken as they rise, and look like an assemblage of little masts: when, as they suppose, the monster has glutted his invisible jaws, no doubt proportionably enormous, with a sufficient quantity of fishes, it dives down with a dreadful commotion of the water. Could any dependance be placed upon the authenticity of these relations, it would lead us to class the monster among polypi, with antennæ or sensitive horns like the star-fish, *Stella arborescens*, or Pliny's *Ozaena*. Indeed many suppose them to be the young of the kraken.*

* The compiler of the Natural History of Norway, after carefully investigating the authenticity of the above description, attempts to prove the probable existence of the Kraken, *a priori et posteriori*. His remarks are at any rate sufficiently entertaining.—See Note X.

BOOK III. — CHAP. I.

Figure and manner of life of the Greenlanders: — I. *Description of their persons.* — II. *Natural disposition.* — III. *Costume.* — IV. *Houses and tents with their furniture.* — V. *Diet and cookery.* — VI. *Various kinds of darts for hunting and fishing.* — VII. *Great and small boats. Management of the kajak.* — VIII. *Seal catching by the harpoon and bladder, the clapper hunt, and on the ice.*

I. The Greenlanders vaguely term themselves *Innuit*, men, or natives. The Icelanders, who many centuries ago discovered and colonized the country together with the neighbouring coasts of America, bestowed upon them the contemptuous appellation of Skrællings, expressive of their dwarfish and imbecile appearance.* Their stature is indeed extremely low, rarely exceeding five feet at the highest, and they appear to possess little vigour of body, though their limbs are well-proportioned. The face is commonly broad and flat, with high cheek bones, but full round cheeks. The eyes are small and black, without fire. The nose is puny and not very prominent, though it cannot be called flat. The mouth is generally small and round, with the under lip rather thicker than ordinary. The colour of the body is dark grey; the face brown, in many instances of a reddish hue. This darkness of complexion is probably not natural to them, since their children are born as fair as European infants, but may be induced by their unclean-

* It is a common observation, that man and all other animals grow less the nearer they approach to the pole, though the elk, the white bear, and the rein-deer, form an important exception. This degeneracy is ascribed to the cold inclement air, and the foggy atmosphere which reigns in northern climates. Ellis, to whom we owe the most detailed account of the Esquimaux in Hudson's Bay, a people coinciding in almost every respect with our Greenlanders, observes that large trees are found at the southern extremity of the bay, but in lat. 61°. nothing but brushwood is to be seen, and the human stature becomes more diminutive. In lat. 67°. no men reside.

ly habits, their continual traffic in blubber, their sitting in the smoke of their dirty lamps, and their total neglect of washing. The burning heats of summer, which in this climate suddenly take place of a cold, raw atmosphere, may indeed contribute in no inconsiderable degree to the national and hereditary swarthiness. But the principal cause seems to be the large use they make of train in their cookery, which renders their blood so thick and heated, that the oily effluvia exhales with their perspiration, and their hands feel as clammy as blubber itself. A few individuals are seen with a whiter skin and red cheeks, and a still greater number have a visage less approaching to rotundity, who might pass undistinguished in Europe, especially among the inhabitants of certain Swiss mountains. There are Greenlanders of European fathers, but educated in the Greenland manner, who differ from the rest only in a few of their features, and not at all in colour. On the other hand, I have seen the children of an European by a half Greenland mother, who were not inferior to any whites in fairness of complexion.

They have universally long, coal-black, strong hair, with but few appearances of a beard which they are careful to eradicate. The hands and feet are small and tender, but the head and the rest of the body are large. They have a swelling breast and broad shoulders, particularly the women, who are accustomed from childhood to carry heavy burdens. Their whole body inclines to obesity and is loaded with fat. Owing to this habit they can bear an intense degree of cold with very slight clothing, and with the head and neck entirely bare. They generally sit in their houses with their upper parts naked, and their bodies emit so hot a steam that an European cannot long endure it. In their winter assemblies for public worship, they exhale so much warm vapour, that it very soon becomes difficult for the missionaries to draw breath.

They are extremely nimble-footed, and are likewise very expert in the use of their arms. Few cripples are seen amongst them; and instances of any natural defor-

mity are still more rare. Nor are they deficient in general agility, and strength of body, though they betray extreme awkwardness whenever they attempt to exert their powers in labours to which they are not accustomed. But in their own exercises they surpass us. A man, who has eaten nothing but sea-weed for three days, can manage his kajak in the heaviest surf, and their women will carry a whole rein-deer eight or ten miles, and bear loads of wood or stones upon their backs, of nearly double the weight, which an European can lift.

II. The popular character is of so complex a nature, that it is difficult to give a clear definition of it. The natives appear to be in general of a sanguine disposition, with a mixture of the phlegmatic. Yet individuals occur amongst them, as amongst all other nations, who are exceptions to the general standard, and instances of persons of a fiery, or a melancholy turn, are not unfrequent. They are not very lively, at least they do not indulge in any sallies of mirth, but they are good-humoured, friendly, and sociable. Unconcerned for the future, they have no eagerness to amass wealth, and are liberal in giving. No peculiar haughtiness of spirit can be ascribed to them, but owing to their ignorance, they have a large share of vulgar national pride. They are far superior in their own estimation to the Europeans, who supply an inexhaustible subject of raillery for their social parties. They cannot, indeed, avoid perceiving the pre-eminence of the strangers, in mental power, and mechanical ingenuity; but they know not how to value these gifts, and their own inimitable dexterity in seal-catching, the main business of their lives, and the only pursuit which is indispensibly necessary to them, supplies sufficient food to their over-weening self-conceit. In fact, they are not so dull and stupid, as the generality of savages, for in their own occupations, they display considerable ingenuity and invention. Nor yet are they that sensible and polished people which some have reported them to be. Their whole stock of ingenuity is exerted in the employments necessary to their existence, and whatever is not inseparably connected

with those employments, forms no subject of their reflection. We may therefore describe their character as consisting of simplicity without stupidity, and good sense uncultivated by the exercise of reason.*

The Greenlanders consider themselves as the only civilized nation in the world, since many improprieties, which they observe too frequently in the conduct of Europeans, seldom or never occur amongst them. Their usual remark, therefore, on seeing a foreigner of gentle and modest manners is: "He is almost as well-bred as we;" or, "He begins to be a man," that is, a Greenlander. They are patient of injuries, and will concede their manifest rights rather than engage in dispute; but when pushed to extremity, they entrench themselves in a brutal desperation and an utter disregard of life.

They are not inclined to laziness, but are always actively employed. They are however extremely changeable, and if they meet with unexpected difficulties in any project, they soon throw it aside. In summer, they sleep five or six hours, and in winter eight, but after hard labour, and a night spent in watching, they sleep the whole day long. In the morning, while they survey from some eminence the appearances of the sky and ocean, and forecast in silence the toils and dangers of the day, they are commonly thoughtful and dejected.

* The description which *Gmelin* gives of the Tungusians, seems likewise well adapted to the Greenlanders. "They are honest," he says, "though not from principle, but from their ignorance of all pursuits, except hunting. They are commonly represented as a stupid race, because they are easily over-reached. But at this rate every man may be called stupid, who is not particularly skilful in things which he has had no opportunity of learning. The standard of a nation's intellect must be sought for in its own pursuits and institutions. Can we wonder then if the Tungusian has not exercised his faculties in occupations totally strange to him? In his own line of life, he is as skilful as the traders who cheat him are ignorant." *Part II., page 216.*

That the Greenlanders are not deficient in natural understanding and active imitative powers, is evident from this, that the children of the baptized readily learn to read and to write a neat hand. One of our Greenlanders is the common gunsmith, and another fills the place of barber to the Europeans.

But when they have no toils to undergo, or after returning successful from the chase, they are cheerful, talkative, and social.

They are so skilful in disguising their passions, that from their external conduct, we might judge them to be a set of Stoics. They appear to meet misfortunes with the greatest composure, and they are not easily irritated, or, at least, they can easily suppress their anger. But in this case they are dumb and sullen, and do not forget to revenge themselves the first opportunity.

III. A Greenlander's wardrobe is a pattern of simplicity and uniformity. It is entirely made up of the skins of rein-deer, seals, and birds. These are sewn together with the sinews of whales and rein-deer, which are split into very thin strings, and twisted two or more into one thread by the hand. Formerly, the natives supplied the place of needles by the most slender bones of birds and fishes, and their knives were made of stone. They now use the finest steel needles, and it is impossible not to admire the neatness of their work. Our furriers acknowledge that they are unable to equal them.

The outer garment is sewed together all round in the manner of a peasant's frock, and is drawn over the head like a shirt. It is not open in front, but fitted close round the neck, and furnished with a hood, which in cold and wet weather serves for a covering to the head. The man's coat reaches only half way down the thigh, and thought it does not lie very tight, admits no cold air, being closed before. Their shirts are the skins of fowls, with the feathers turned inwards, or sometimes rein-deer skins. Over these the wealthiest females wear fine haired rein-deer pelt. The upper garment is in general made of seal-skins: the rough side is worn outwards, and the seams and borders are lined for ornament with narrow stripes of red leather or white dog-skin. But of late, the most opulent of the natives have begun to wear cloth, striped linen, or cotton, though cut the Greenland manner. Their breeches are of seal's skin or fine rein-deer pelts, and very short both above

and below. The skin of the fœtus of the seal supplies them with stockings, and their shoes are made of smooth, black, dressed seal's leather, tied above by a thong passed under the sole. The soles project two inches before and behind, curving upwards, and are very artfully folded, but they have no heels. Their boots are made in the same manner. The richer Greenlanders have also woollen stockings, breeches, and caps. In this sea-expeditions, a *tuelik*, or great coat of polished black seal's skin, is thrown over their dress to keep out the water. Occasionally also, they wear underneath a shirt made of the intestines of some animal, for their better protection from the cold and damp.

The apparel of the females differs little from that of the men. Their outer garments have higher shoulders and hoods, and instead of being cut straight at the bottom, they are narrowed off from the thigh, before and behind, into a long pointed flap, which reaches below the knee, and is bordered with red cotton.

They likewise wear breeches with short drawers under them. They prefer shoes and boots of white or red leather, and the seam, which is in front, is neatly figured. Mothers and nurses wear an *amaut*, that is, a frock wide enough in the back to hold a child. To this the infant is consigned soon after birth, and rolls about in it quite naked, ignorant of any other cradle or swaddling clothes. To prevent it from slipping through, they fasten the garment round the waist by a girdle. Their common dress drips with grease, and swarms with lice, which they catch as expertly as any beggar, and crush between their teeth. But they keep their holiday clothes very neat.

The men wear their hair short, and either turned aside on the forehead, or shorn as far as the crown, that it may not incommode them in their work. The women consider it as disgraceful to cut off their hair; it is done only in deep mourning, or on a resolution never to marry. They wreath their locks into a doublet ringlet on the crown of the head, consisting of a larger and a smaller tuft, which they bind with a gay-coloured ribbon, tricked

Costume of a Greenland Man & Woman.

London, Published by Longman, Hurst, Rees, Orme, & Brown, Oct.r 20. 1818.

out perhaps with the additional ornament of glass beads. They wear these beads likewise in their ears, round their neck and arms, and on the border of their clothes and shoes. They have begun, since their intercourse with Europeans, to make various alterations in their dress. The rich bind a slip of coloured linen or silk round the forehead, but they are careful not to hide the tuft of hair which they esteem their greatest ornament. No one, however, is a finished beauty, till the skin of her cheeks, chin, hands, and feet, has been threaded by a string smeared with soot, which when drawn out leaves a black mark.

The mother performs this painful operation on her daughter in childhood, fearful that she will else attract no husband. This custom obtains among the Indians of North America, and various Tartar tribes, where both sexes practise it; the one to heighten their charms, the other to inspire terror. Our baptized Greenlanders have long ago renounced this practice, as a foolish vanity, and an allurement to sin.

IV. The Greenlanders live in houses in winter, and in tents during the summer.

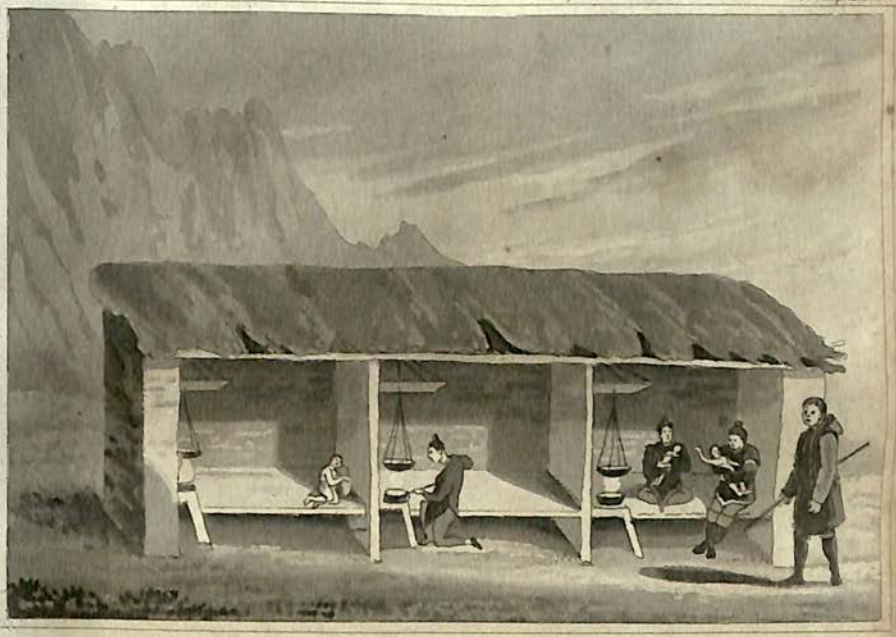
The houses are twelve feet in breadth, and from eight to twenty-four yards long, according to the number of inhabitants. They are just high enough to allow a man to stand upright. They are not built under ground, as is generally supposed, but on an eminence, and if possible on a steep rock, that the snow-water may run off the better. The walls are constructed of huge stones, six feet broad, with layers of soil and turf between. On these walls they lay the beam, the length of the house. If one is not long enough, they splice together two, three, or perhaps four, with leathern thongs, and supports them by posts. They throw spars and smaller timber across, cover them with brushwood and sods, and strew fine earth over the whole. This roof stands as long as the frost continues, but in summer it is washed in by the rain, and must be repaired, together with the walls, in autumn.

As they derive their support from the sea, they never

build at any distance from it, and the entrance of their houses fronts the shore. Their habitations have neither doors nor chimnies. In place of both there is, before the front of the house, an arched entrance of earth and stones, five or six yards long; but so low, particularly at each extremity, that it is necessary not merely to stoop, but almost to creep in the passage. This long avenue excellently keeps out the wind and rain; and the thick air, for there is no smoke, finds egress through it. The walls are hung on the inside with old tent and boat skins, fastened by nails of seal bones, in order to keep out the moisture; and the roof is covered on the outside with the same materials.

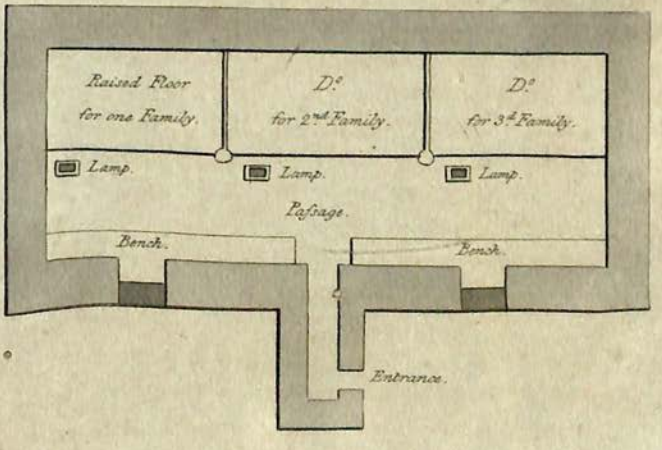
Half the area, from the middle of the house to the back wall, is occupied by a raised floor or platform of boards, covered with skins, at the height of a foot from the ground. This platform is divided into several compartments resembling horses' stalls, by skins stretching from the pillars which support the roof to the wall. From three to ten families live in one house, and each family occupies such a partition. They sleep on the platform wrapped in pelts, and sit there in the day time. The men sit in front in the ordinary way, and the women are commonly seated behind them with their legs crossed in the Turkish manner. The husband is employed in cutting out his hunting and fishing implements, while his wife tends her cookery or sewing. In the front wall are several windows upwards of two feet square, netted of the intestines of seals and the integuments of halibuts' maws, and of so artful and compact a texture, that they exclude the wind and snow, while they admit a sufficiency of light. A bench runs along under the windows, the whole length of the house, for strangers to sit and sleep on.

Near each pillar there is a fire-place. A block of wood laid on a hearth of flat stones supports a low three legged stool. On this stands the lamp hewn out of weichstein, a foot in diameter, and crescent shaped, with an oval bowl of wood under it, to receive the oil that runs over. In this lamp, filled with the train of seals,



Greenland House.

Ground-plan.



London, Published by Longman, Hurst, Rees, Orme, & Brown, Oct.r 20, 1818.

filaments of moss are placed instead of cotton, which burn with so bright a flame, that the house is not only illuminated but warmed by its several lamps. Over the lamp an oblong weichstein kettle, an utensil of prime importance, is suspended by four strings from the roof. It is a foot in diameter, and every kind of food is cooked in it. Still higher is a wooden rack, on which they spread out their wet clothes and boots to dry.

There are as many fire-places in a house as there are families, and more than one lamp is frequently burning day and night in each, so that their houses are kept of a temperate and equable warmth. No steam or smoke is perceivable, and they are perfectly secure from accidents by fire. The smell from so many train lamps, and such large quantities of fish and flesh boiling over them, but particularly the fumes of urine vessels standing in the house with skins steeping in them for dressing, are extremely offensive to unaccustomed nostrils, though habit soon renders the effluvia bearable. In other respects their housekeeping must excite our admiration, whether we consider the contrivance with which all their necessaries are crowded into so small a compass, their contentedness in a poverty which appears to them the height of abundance, or the wonderful order and quietness with which they move in their contracted circle.

Adjoining to their dwellings stand their little store-houses, built of stones in the form of a baker's oven, containing their stock of flesh-meat, blubber, and dried herrings. But what they catch during the winter is buried in the snow, and the train is preserved in seal skins. Close by, their boats hang suspended on long poles, with the hunting apparatus under them.

In September, the building of houses or repairing of those whose roofs have fallen in during the summer, occupies the women, for the men do not engage in any domestic labour, excepting wood-work. They move into their houses after Michaelmas; and in March, April, or May, as soon as the snow disappears, and the crumbling roofs threaten to fall in upon them, they joy-

fully flit into tents. In the erection of these tents they have a quadrangular area with small flagstones, round which they fix from ten to forty poles, which culminate to a point above, resting upon a framework of the height of a man. Over these ribs they hang a double covering of seal-skins, lined by the more wealthy with reindeer pelts, the fur side inwards. The lower margin of this curtain is kept down to the ground by heavy stones, and the interstices stuffed with moss, to prevent the tent's being overset by the wind. A curtain, neatly woven of seal's gut, hangs before the entrance, bordered by a hem of red or blue cloth, and embroidered with white. The cold air cannot penetrate this hanging, though it admits a powerful gleam of light. The tent-skins project considerably on all sides of the entrance, making a kind of porch, where the inmates deposit their provisions and their offensive utensils.

During their residence in tents they usually boil their food over a wood fire in the open air, using for this purpose kettles of brass. The housewife, who in summer displays all her finery, arranges her furniture in the corner of the tent, screening them from dust by a curtain of white leather, embroidered with various devices. On the outside of these curtains, she hangs her looking-glasses, ribbons, and pin-cushions. Each family has its separate tent, though they frequently lodge their relations, or one or two poor families, so that the number of inhabitants often amounts to twenty. The beds and fire-places are the same as in the winter-houses, but every thing is much more neat and cleanly, affording a comfortable retreat even to an European.

V. The products of the earth are insufficient to support life: we have already noticed the few shrubs, plants, and algæ, which supply occasional refreshment rather than solid food. The choicest dish of the Greenlanders is the flesh of the reindeer. But as those animals are now become extremely scarce, and several of them are soon consumed by a hunting party, they are indebted to the sea for their permanent sustenance,

seals, fish, and sea-fowl. Hares and partridges are in no great estimation as delicacies.

They do not eat their meat raw, according to an erroneous notion of certain writers, still less their fish. They have indeed a superstitious custom, on every capture, of cutting out a piece of the raw flesh, and drinking the warm blood. And the woman who skins the seal, gives a couple of pieces of the fat to each of the female spectators.* The head and legs of the seal are preserved under the grass in summer, and in winter a whole seal is frequently buried in the snow. The flesh, half frozen, half putrid, in which state the Greenlanders term it *Mikiak*, is eaten with the keenest appetite. The ribs are dried in the air and laid up in store. The remaining parts of the seal, as well as birds and small fishes, are eaten well boiled or stewed with a small quantity of sea-water. On the capture of a seal, the wound is immediately stopped up to preserve the blood, which is rolled into balls like force-meat. The intestines of small animals are eaten without any farther preparation than that of pressing out the contents between the fingers. They set a great value on what they find in the reindeer's maw; making it into a dish which they call *Nerukak*, the *eatable*, and send presents of it to their friends. The entrails of the *Rypen*, mixed with fresh train and berries, compose another mess which they consider as a consummate delicacy. Their preserves for winter are composed of fresh, rotten, and half-hatched eggs, crake-berries, and angelica, thrown together into a sack of seal-skin filled up with train. They likewise suck out the fat from the skins of sea-fowls, and in dressing seal-skins they scrape off the grease which

* An European assured me that he had frequently followed the example of the Greenlanders in the chase, and assuaged his hunger by eating a piece of raw reindeer's flesh; nor did he find it very hard of digestion, but it satisfied his appetite much less than boiled meat. The Abyssinians are also accustomed to eat much raw meat, and can digest it in their hot climate. The reason therefore why we eat our meat cooked, should seem to be that it tastes better, and yields a better nourishment.

could not well be separated in the skinning, to make a kind of pancake.

The assertion that they drink train oil is unfounded; they principally use it to supply their lamps, and as an article of barter. It is not however unusual with them to eat pieces of blubber with their dried herrings, or to fry their fish in it, chewing it thoroughly in their mouth, before they put it into the kettle. Their common beverage is water, which is kept in the house in a large copper cauldron, or a neat tub of their own workmanship, ornamented with rings and facets of bone, and furnished with a copper ladle. They daily replenish this reservoir with fresh water, and put pieces of ice or snow in it to keep it cool.

Their habitual dirtiness extends to the preparation of their victuals. A kettle is seldom washed, except the dogs chance to lick it clean. They keep their weichstein vessels however in good order. The cooked meat is served up in wooden dishes, after the soup has been drank off with ladles. The raw flesh is laid on the ground, or an old skin, but very little cleaner. They use no knives and forks at their meals; they tear fowls in pieces with their fingers, and will fasten with their teeth on a whole piece of fish or flesh-meat without any ceremony. At the end of the repast, they take a knife and scrape the grease, with whatever perspiration has exuded from their faces, into their mouths When they intend to treat an European with particular politeness, previous to offering him a piece of meat, they lick off the blood and filth, which it has contracted in the kettle. If the gift be declined, it is considered as a gross insult, and an affront done to their hospitality.

Their eating hours are regulated by the calls of hunger; but their chief meal is in the evening, when the men return with their booty from the sea. Those who have been successful, invite the rest of the party to the feast, or send them a share to their own houses. The men sit down first to table by themselves, but the females do not forget their own interest on these occasions. And as every article of provision passes through

their hands, they frequently take advantage of the absence of their husbands to regale themselves and a party of friends at their cost. It is their greatest joy in these stolen banquets to see the children gorge their fill, and roll upon the bench, in order to make themselves capable of receiving more.

They are altogether careless of the morrow. When they have a plentiful stock on hand, there is no end of banquetting and visiting; and they conclude their entertainments with a dance, in expectation, that the sea will every day be equally bountiful. But on the retreat of the seals in spring, from March to May, or during a season of stormy weather or severe frost, they are not unfrequently obliged to fast several days, or to support life by muscles and sea-weed, or even old tent-skins and shoe-leather, if they have only train left to seethe them. Notwithstanding these resources, many perish of hunger.

In case their fire goes out, they rekindle it by means of a stick, which they whirl swiftly round by a string, in the hollow of another piece of wood.

Foreign provisions are extremely welcome to them, particularly bread, pease, groats, and stockfish, to procure which, some would part with every thing they possess. They have however the greatest aversion to swine, being disgusted by the coarse feeding of this animal. Formerly, they abhorred spirituous liquors, denominating them the *Waters of Madness;* but since their closer acquaintance with Europeans, they would willingly purchase them, were the means in their power. They sometimes counterfeit sickness, in order to obtain a dram, for brandy frequently saves their lives after a surfeit. They love to smoke tobacco, but are unable to buy much. They dry the fresh leaves on a hot plate, and pound it to dust in a mortar, and are so accustomed to this snuff from infancy, that it would be difficult for them to give it up; indeed, on account of their running eyes, it would not be adviseable.

VI. The implements which the Greenlanders make use of for killing their game, though simple, are ex-

tremely ingenious, and better adapted to their purpose than our more expensive instruments.

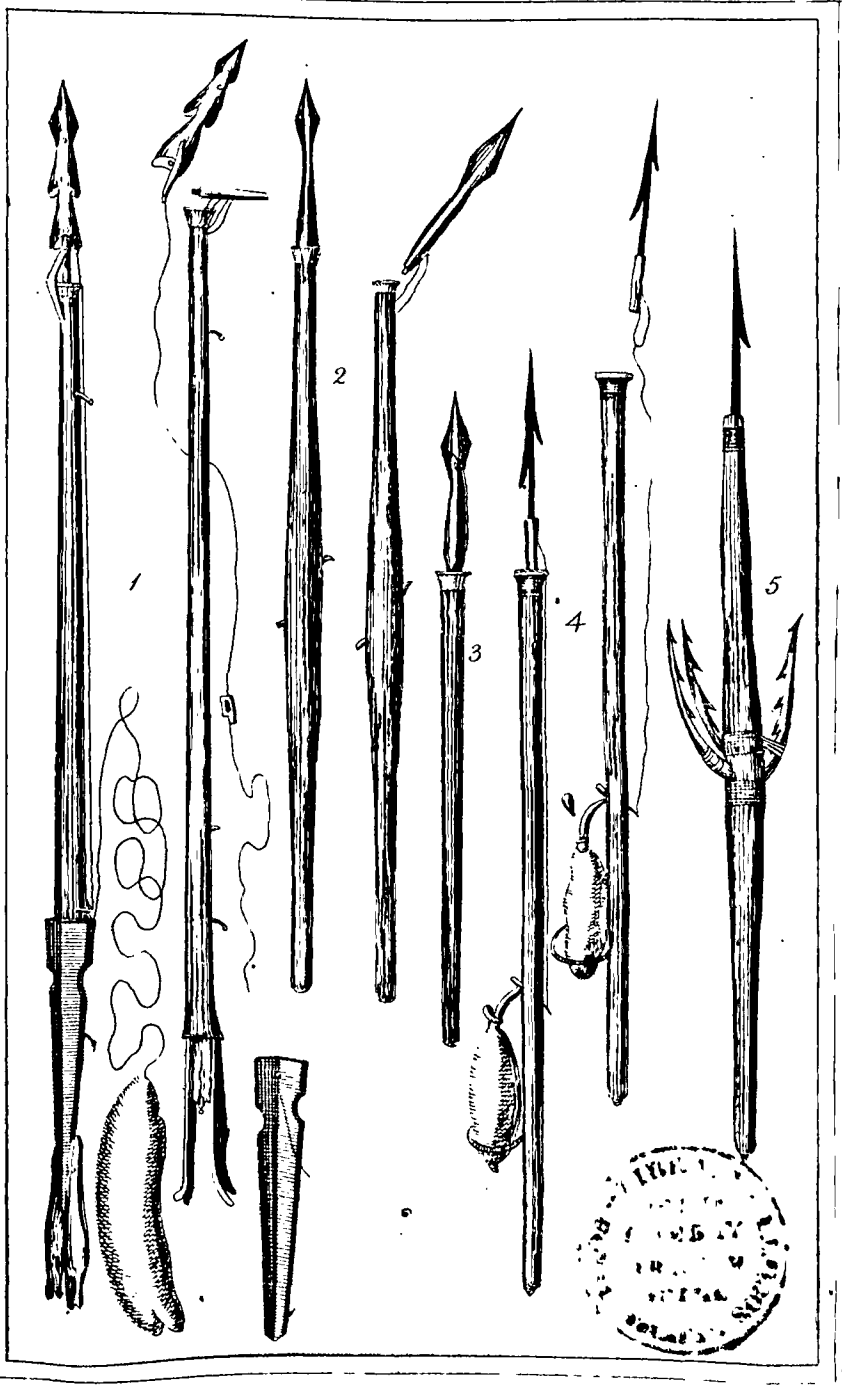
For the chase they formerly used bows made of young fir, six feet long, and strengthened by the bones or tendons of animals. The string consisted of sinews: the arrow was wood tipped with a bony barb, and shafted with raven feathers. These bows have disappeared since the introduction of fowling-pieces.

Five different weapons are used for water-game.

1. The *Erneinek* or Harpoon-dart, with a bladder appended. The length of the shaft is six feet; the breadth an inch and a half. The upper part admits a moveable joint of bone, headed by the harpoon half a span long, which is likewise of bone, barbed, and pointed with iron. At the butt-end of the shaft are two pieces of whalebone, a span long, shaped like a weaver's shuttle, to carry it more steady in its flight. To these is fixed the rest or casting-board, two feet long, and notched on both sides to procure a firm hold for the thumb and forefinger. A string hangs from the harpoon about eight fathoms long, which, after passing through a ring of bone in the middle of the shaft, lies in coils in the fore-part of the kajak, and is finally fastened to a bladder or a blown seal-skin pouch behind the Greenlander, in the other end of the vessel. The construction of this dart manifests exquisite contrivance, but it is not easily described. If the weapon were of one entire piece, it would immediately be snapped in two by the wounded animal. The harpoon therefore is made to fly out of the shaft, which is left floating on the surface, while the seal plunges with the harpoon under water. The handle, after imparting a violent impulse to the shaft, remains behind in the hand of the thrower.

2. *Angovigak*, the great Lance, nearly two yards long. This is furnished with the same moveable joint and iron head as the preceding, but without barbs, that it may be immediately drawn out of the wound.

3. The *Kapot*, or small Lance, has a long sword-like point fastened to it.



Darts used by the Natives of Greenland.

London Published by Longman Hurst, Rees Orme & Brown, Oct.r 20 1818.

These three darts are used by the Greenlanders in capturing seals with a bladder. The following one is used only in the clapper-hunt.

4. The *Aglikak*, or Missile Dart, is two yards in length. It has a round iron spike a foot long, with two indentures instead of barbs, which likewise leaves the tip of the shaft when thrown, but remains suspended by a string to the middle of it. A large bladder is fastened towards the butt-end to impede the retreat of the seal, which receives many of these darts in the clapper-hunt. A hollow tube of bone is fixed to the neck of the bladder with a stopper, to inflate it at pleasure.

5. For fowling they use the Bird-dart, *Nuguit*. It is six feet long, and has a blunt spike with only one barb, fixed in the wood. Since however sea-fowl easily avoid the point of the weapon by the rapidity of their movements, three or four jagged ribs of bone branch out from the shaft, one of which generally intercepts the bird. A handle is frequently used for throwing this and the preceding weapon.

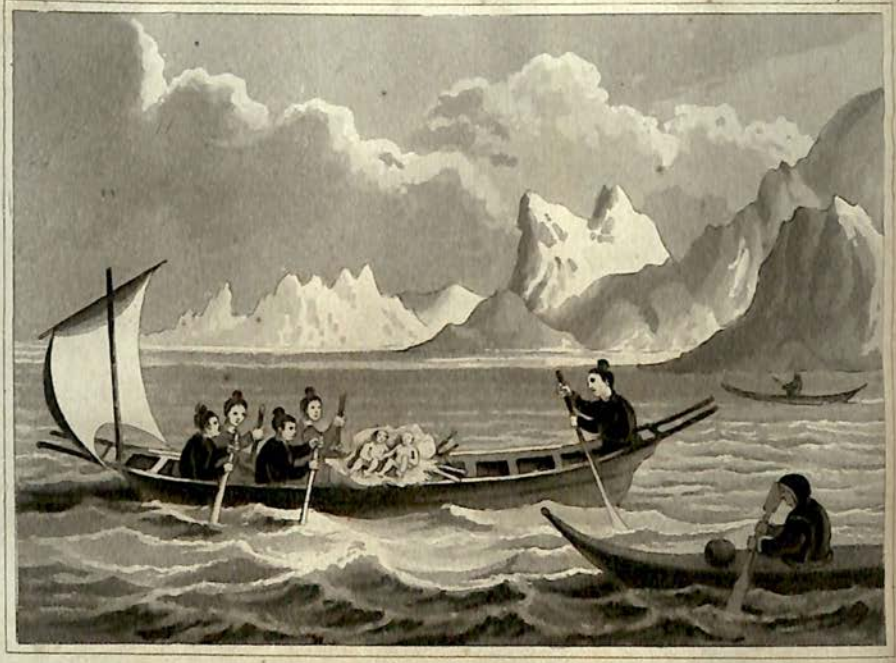
VII. The same inelaborate but successful contrivance, is shown in the mechanism of their boats. They are of two kinds, the greater and smaller.

The great or women's boat, *Umiak*, is commonly from six to eight or nine fathoms long, from four to five feet broad, and three deep. It is narrowed to a point at each extremity, with a flat bottom. It is made of slender laths, about three fingers broad, fastened down by whalebone, and covered with tanned seal skin. Two ribs run along the sides parallel to the keel, meeting together at the head and stern. Across these three beams, thin spars are mortised in. Short posts are then fitted to the ribs to support the gunwale; and as they are liable to be forced outwards by the pressure of the transverse benches for the rowers, of which there are ten or twelve, they are hooped in on the outside by two gunwale ribs. The timbers are not fastened by iron nails, which would soon rust and fret holes in the skin coating, but by wooden pins or whalebone. The Greenlander performs his work without line or square,

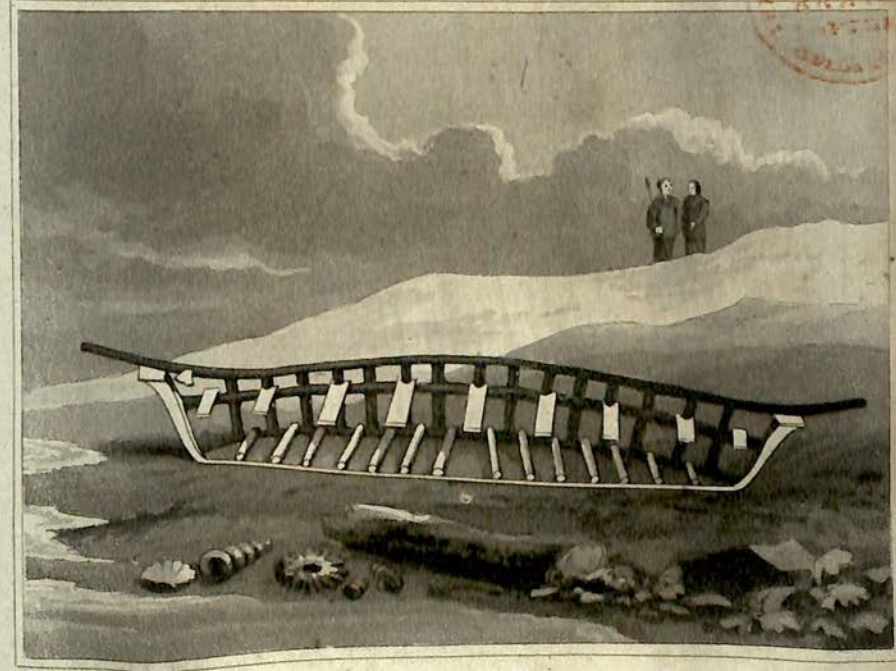
taking the proportions by his eye, which he does with great accuracy. The only tools which he employs for this and every other kind of work, are a small saw, a chisel, which when fastened on a wooden handle serves for a hatchet, a small gimlet, and a sharp-pointed pocket knife. As soon as the skeleton of the boat is completed, the woman covers it with thick seals' leather, still soft from the dressing, and calks the interstices with old fat, so that these boats are much less leaky than wooden ones, the seams swelling in the water. They require however a new coating almost every year.

They are rowed by the women, commonly by four at a time, while one manages the helm. It would be scandalous for a man to interfere, except he were warranted to snatch the oars by a case of extreme danger.

The oars are short with a broad palm like a shovel, and they are confined to their places on the gunwale by leathern grooves. At the head of the boat, they spread a sail of gutskins sewed together, two yards high and three broad. Rich Greenlanders make their sails of fine white linen striped with red. But they can only sail with the wind, and even then cannot keep up with an European boat. They have however this advantage, that they can make way with their oars much faster in contrary winds or a calm. In these boats they undertake voyages of from four to eight hundred miles north and south along the coast, with their tents and all their goods, besides a complement of ten or twenty persons. The men however keep them company in kajaks, breaking the force of the waves when they run high, and, in case of necessity, holding the sides of the boat in equilibrium with their hands. They commonly sail thirty miles a day. In their nightly encampments on the shore, they unload their boat, turn it upside down, and cover it with stones, to secure it from the violence of the wind. If the state of the coast prevents their progress by sea, six or eight of them carry the vessel on their heads overland to a more navigable water. Europeans have also built boats after this model and find



Umiak or Women's Boat.



Skeleton of Do

London, Published by Longman, Hurst, Rees, Orme, & Brown, Oct.r 20, 1819.

them on many occasions more serviceable than their own heavy shallops.

The small man's boat, or *Kajak*, * is six yards long, and shaped like a weaver's shuttle. The middle is not a foot and a half broad, and scarcely a foot in depth. It is constructed of long laths with cross hoops, secured by whalebone, and is cased in seal-skin leather. Both the ends of the boat are capped with bone, on account of the friction to which they are exposed amongst the rocks. In the middle of the leathern covering of the kajak is a round hole with a ring of wood or bone. In this the Greenlander squats down upon a soft fur, the hoop or margin reaching up to his hips, and tucks his water-pelt or great coat so tightly round him, that no water can penetrate into the boat. This water-coat is also fastened close round his neck and arms, by bone buttons. The harpoon-dart is strapped to the kajak at his side. Before him lies the line rolled up, and behind him the bladder. He grasps with both hands the middle of his *Pautik*, or oar, which is made of solid deal plated with metal at the ends, and with bone along the sides, and strikes the water quickly and evenly, beating time. Thus equipped, he sets out to hunt seals or sea-fowl, with spirits as elate as the commander of the largest man-of-war.

A Greenlander in his kajak is indeed an object of wonder and delight, and his sable sea dress, shining with rows of white bone buttons, gives him a splendid appearance. He rows with extreme celerity in this boat, and when charged with letters from one colony to another, will perform fifteen or sixteen leagues in a day. He dreads no storm: as long as a ship can carry its top-sail, he braves the mountainous billows, darting over them like a bird, and even when completely buried in the waves, he soon re-appears skimming along the surface. If a breaker threatens to overset him, he supports himself in an erect position by his oar, or if he is actually upset, he restores himself to his balance by one

* Pronounce Kiyak.

swing of his paddle. But if he loses the oar, it is certain death, unless speedy succour be at hand.

Some Europeans have by dint of application attained sufficient command of the kajak for a calm-weather voyage; but they seldom venture to fish in it, and are totally helpless in dangerous situations. The Greenlanders possess in the management of this vessel, a dexterity peculiar to themselves, which excites a fearful interest in the spectator, as the exercise is connected with so much danger that their utmost art cannot always save them from perishing in the pursuit of their sustenance. It will not therefore be improper to notice a few of the manœuvres by which young Greenlanders are trained to this extraordinary skill. I have observed ten different exercises; there are probably several others which have escaped my notice.

1. The rower lies alternately with both sides of his body on the water, preserving his balance by his pautik, to prevent a total overset, and again recovers his proper position.

2. He overturns himself entirely, so that his head hangs perpendicularly downwards, and by a swing of the pautik on either side, regains the erect posture. In these accidents, which are the most common, and frequently occur in a stormy sea, the Greenlander is supposed to have the free use of his oar. But in seal-catching the pautik may easily be entangled among the straps and cordage, or even entirely lost. It is needful then to prepare likewise against these casualties.

3. They accordingly run one end of the pautik among the cross straps of the kajak, overset it, and work themselves up again by a quick motion with the other end.

4. They take hold of one end with their mouths, moving the other with their hand, so as to raise themselves.

5. They hold the pautik with both hands across the nape of the neck, or

6. They hold it fast behind the back, overset, and

The Greenlander in his Kajak.

Skeleton of a Kajak.

London, Published by Longman, Hurst, Rees, Orme, & Brown, Oct.1.1813.

move it in that position with both hands, till they rise and regain their balance.

7. They lay it over the shoulder, and working it by one hand before, and the other behind, emerge from the water.

These manuœuvres regard the entanglement of the pautik. Cases, however, occur, where it is altogether lost, which is the greatest misfortune that can befal a kajak rower.

8. Another exercise, therefore, is to hold the pautik under the bottom of the kajak with both hands, with their face leaning downwards on the upper covering; having thus fixed themselves, they invert the boat, and rise aloft again by moving the oar, which now lies on the surface of the water, from beneath.

9. They leave hold of the oar, and pull it down from the surface, when overset and under water.

10. If the oar is lost past recovery, they attempt to jerk themselves upwards by striking the water with the handboard of the harpoon, or a knife, or even the palm of the hand; but this experiment rarely succeeds.

The youthful rivals must also exercise their agility among sunken cliffs and dashing surges, now driven between a double wave upon the rocks, now whirled completely round, or buried in the foam. In this rough school, initiated into these perilous gymnastics, they learn to bid defiance to the heaviest tempest, and to conduct their barks to land through the rage of contending elements.

When overset at sea and destitute of all resource, they usually creep out of their kajaks, and call for assistance to any one who is in sight. If no help arrives, they lash themselves to their boats, that their bodies may be found and buried.

Every Greenlander is not capable of learning all these different arts, and there are many expert seal-catchers who cannot easily recover themselves when overset. Many persons are on this account cast away in the seal-fishery.

VIII. There are three methods of taking the seal; either singly with the bladder, or in company, by the clapper hunt, or in the winter on the ice. Of late years, shooting them with a gun has been sometimes practised.

The customary method is that in which the harpoon and bladder are employed. The Greenlander seated in his kajak with all his accoutrements, no sooner perceives a seal than he approaches, if possible, to leeward of him, with the sun on his back, lest he should be seen or scented by the animal. Concealing himself behind a wave, he darts swiftly but softly forward, till he arrives within the distance of five or six fathoms, taking care meanwhile, that the harpoon, string, and bladder, lie in proper order. He then takes the paddle in his left hand, and seizing the harpoon in his right, lances it by the casting board at the seal. If the harpoon sinks deeper than the barbs, it immediately disengages itself from the bone joint, and that again from the shaft, while the string is wound from its roller in the kajak. The Greenlander, the moment he has struck the seal, which dives down with the velocity of an arrow, throws the bladder after him into the water. He then picks up the floating shaft, and restores it to its groove in the kajak. The bladder, which displaces a body of water of more than a hundred pounds weight, is frequently dragged down by the seal; but the animal is so wearied by this encumbrance, that he is obliged to re-appear on the surface in about a quarter of an hour to draw breath. The Greenlander, on perceiving the bladder, rows up to it, and as soon as the seal makes his appearance, wounds him with the great barbless lance; and this he repeats as often the animal emerges above water, till it is quite exhausted. He then despatches it with the small lance, and ties it to the left side of the kajak, after inflating the cavity under the skin, that the body may float more lightly after him.

This exercise is extremely perilous, and exposes the Greenlander to the greatest danger of his life, from which it probably derives its name of *Kamavok*, the extinction. For if the string, in its rapid evolution, be-

comes entangled in the kajak, or if it winds itself round the oar, the hand, or even the neck, as it sometimes does in windy weather; or if the seal suddenly glance from one side of the kajak to the other; the inevitable consequence is, that the kajak is overturned by the string and dragged under water. The Greenlander has now occasion for all his address to extricate himself, and recover his balance several times successively; for the string continues to whirl him round till it is quite disengaged. Even when he supposes all danger to be over, and approaches too near to the dying seal, it may still bite him in the face and hands; and a seal with young, instead of retreating, often flies furiously upon the hunter, and tears a hole in the kajak so as to sink it.

This solitary method of seal-catching only succeeds with the stupid attarsoak. Several in company pursue the cautious kassigiak and the attarsoit, in what is called the Clapper-hunt, surrounding and killing them in great numbers at certain seasons. In autumn these animals generally shoal together in the creeks, particularly into *Nepiset Sound* in Baal's River, a narrow firth upwards of four miles in length. There the Greenlanders cut off their retreat, and drive them under water by shouting, clapping, and throwing stones. The seals not being able to remain long without respiration, are soon exhausted, and at last continue so long on the surface that they may be conveniently surrounded and killed by the *Aglikak*, or missile dart. This hunt also affords the Greenlanders ample scope for displaying their address. Their manœuvres are not unlike those of a body of hussars. When the seal emerges, they all rush upon him like falcons with deafening cries, and on the animal's diving, which he is quickly compelled to do, the whole party retire in an instant to their posts, watching to see at what spot he will rise next. This is generally half a mile from the former place. If the seal has the range of a sheet of water four or five miles square, he will keep the huntsmen in play for two hours before he is totally exhausted. Should he retire to the land in his distress, he is assailed with sticks and stones by the women and

children, while the men strike him in the rear. This is a very lucrative as well as lively diversion to the Greenlanders. A single man sometimes receives nine or ten seals for his share in a day.

The third method of seal-catching, on the ice, is principally practised in Disko, where the firths are frozen over in winter. They are taken in several ways. The Greenlander posts himself near a breathing hole which the seal has made, sitting upon a stool, with his feet resting on another lower one, to prevent the effects of the cold. When a seal comes and puts its nose to the hole, he immediately strikes it with his harpoon; then enlarging the opening, he draws out his prize and kills it outright. At other times he lies upon his belly on a kind of sledge, near one of the holes at which the seals come forth to bask in the sun. A smaller aperture is made not far from the large one, into which another Greenlander puts a harpoon with a very long shaft. He that lies on the ice, watches at the great hole till he perceives a seal coming towards the harpoon. He then makes a signal to his companion, who forcibly drives down his harpoon into the seal.

When the hunter descries a seal basking near his hole on the ice, he crawls towards it on his belly, wagging his head and imitating its peculiar grunt. The incautious animal, mistaking him for one of its companions, suffers him to approach near enough to throw his lance.

Again, where the current has made a large opening in the ice in spring, the Greenlanders, planting themselves round it, wait till the seals approach in droves to the brink for air, and kill them with their harpoons. Many of these creatures likewise meet with their death while sleeping and snoring in the sun. *

* See Note XI.

CHAPTER II.

Conduct of the Greenlanders in their domestic Concerns. — I. *Their Behaviour to each other while single.* — II. *Marriages, Polygamy, and Divorces.* — III. *Birth, Naming, and Education of their Children.* — IV. *Occupations of the young People of both Sexes.* — V. *Hardships of the Women and old People.* — VI. *Method of dressing Leather.* — VII. *Distribution of Labour.* — VIII. *Uncleanly, yet in some Respects orderly Housekeeping.*

The following brief account of the manners and customs of the Greenlanders, as far as they regard domestic economy, is taken partly from personal observation; partly from the relations of others; and partly from books printed on the subject. Our remarks must of course be understood to refer only to such savages as have had little or no intercourse with Europeans, and have not adopted any of their manners.

I. The Greenlanders lead outwardly a pretty orderly life, and it rarely occurs that any thing unbecoming is perceived in their conversation or intercourse with each other. Concerning their secret practices we shall have occasion to make a few remarks in another place. The women are seldom guilty of incontinence, with the exception of young widows, and those divorced from their husbands. Such frequently push their fortune by selling their illegitimate offspring to the childless, or by adoptions into other families, but seldom marry a second time. Single persons of both sexes have rarely any connection; and a maid would take it as an affront were a young fellow to offer her a pinch of snuff in company.

II. A man seldom thinks of marrying till he is twenty years of age. About that time of life he generally pitches upon a woman nearly of his own age, and informs his parents or nearest relations upon whom he has fixed his choice. The dowry of the bride, which consists in nothing more than her clothes, knife, lamp, and at most a stone-kettle, is not so much regarded as her

cleverness in sewing and managing household affairs. She, on the other hand, looks chiefly to his skill as a hunter. The parents are not long about giving their consent, for they leave their children, and especially their sons, free to follow their own inclination in every thing. Two old women are immediately dispatched to negotiate matters with the parents of the bride. They at first say nothing of the marriage contract, but speak highly in praise of the bridegroom and his family. The damsel directly falls into the greatest apparent consternation, and runs out of doors tearing her bunch of hair; for single women always affect the utmost bashfulness and aversion to any proposal of marriage, lest they should lose their reputation for modesty, though their destined husbands be previously well assured of their acquiescence. However their reluctance is not always dissembled, but often really produces surprising effects. Some females when a husband is proposed to them, will fall into a swoon, elope to a desert place, or cut off their hair, which among the Greenlanders is esteemed a mark of the deepest despondency. In the latter case they are seldom troubled with farther addresses. This horror of matrimony may possibly originate in the frequent examples of divorced wives and overbearing concubines.

During their daughter's bashful fit, the parents tacitly comply with the proposal, without any express approbation. The women then go in search of the refractory maid, and drag her forcibly into her suitor's house, where she sits for several days quite disconsolate, with dishevelled hair, and refuses nourishment. When friendly exhortations are unavailing, she is compelled by force and even blows to receive her husband. Should she elope, she is brought back and treated more harshly than before.

Some parents, however, provide a settlement for their children, or betroth them in childhood, confirming the contract by mutual pledges. The parties then cohabit as soon as they please, without any ceremony. Sometimes a married Greenlander will drag another wife home by force, whom he finds alone or at a dance. In

the latter case he must provide himself with seconds, lest a scuffle should ensue, which however seldom happens.

First cousins or strangers adopted into one family and educated together, seldom intermarry. On the other hand examples occur, though they are rare, of a Greenlander marrying two sisters, or a mother and her daughter. Such conduct draws down general odium upon the parties concerned.

Polygamy is not common among them, as scarce one out of twenty has two wives. Those who marry several are not despised, but merely regarded as clever providers; and since it is esteemed a disgrace to have no children, and especially no son to support their declining age, such childless Greenlanders as are competent to maintain several, will seldom restrict themselves to one. They indeed, in such a case, expose themselves to the criticism of their neighbours, whether their motive was genuine zeal for the welfare of their family, or only a lascivious disposition. Those men who marry three or four wives, or women who cohabit with several husbands, are subjected to universal censure. Many women conceive a disgust for polygamy, especially since they have heard that it is prohibited in christian countries; others encourage their husbands to it, or else purchase the conjurations of an Angekok to obtain issue.

Their connubial intercourse is conducted with tolerable decorum. If any infidelity occurs in the wife, the injured husband does not seek present punishment, but smothers his resentment, till he has an opportunity of revenging himself in a similar way. The disagreement indeed seldom passes over without contumelious expressions on both sides, and frequently costs the wife a black eye, which is rather surprising, as the Greenlanders are not at all quarrelsome or addicted to blows. The marriage contract is not so irrevocable, that the husband may not divorce his wife, especially if she has no children. Little ceremony is used on the occasion. He only gives her a sour look, marches out of doors, and

absents himself for a few days. She immediately takes the hint, packs up her effects, and withdraws to her relations, demeaning herself in future as discreetly as possible, in order to chagrin him, and bring scandal upon his conduct.

Sometimes a wife absconds, because she cannot put up with the behaviour of her associates in housekeeping. This mostly arises from the husband's mother exercising an undue superiority, and treating his wife as little better than her maid. It rarely happens that a separation takes place when they have children, and especially sons, who are their greatest treasure, and best security against future want. Should a divorce take place, the children always follow their mother, and, even after her decease, can never be prevailed upon to assist their father in his old age. Instances have occurred in which either husband or wife, and especially the former, has fled into the wilderness, lived many years in the cleft of a rock, upon the uncertain produce of the chace, and shunned the society of man till death. No one will venture alone near the residence of such a recluse, considering their lives in danger within his reach. Separations most frequently take place between young couples, who had not duly weighed the consequences of marriage. The older they grow, the more lovingly they treat each other.

When a Greenlander's only wife dies, he adorns his person, house, and children, as well as his means will allow. Particularly his kajak and darts, which are his principal valuables, must be in the best repair, in order to attract the notice of the females. He however absents himself from all parties of pleasure, and never marries again before the lapse of a year, though he may have young children, and no one to care for them. If he happens to have a concubine, she immediately occupies the place of the deceased, after joining in the lamentation of the surviving relatives, and leading the funeral dance; her countenance suffused with a flood of crocodile tears, all the while betraying her inward joyfulness of heart. She extols the virtues of the dead, caresses her children

more than her own, and laments over their loss; but meanwhile so artfully suggests improvements in the household management, that a stranger has reason to be surprised at the insinuating address of this otherwise unpolished people.

III. The Greenland women are not very prolific. Their children seldom exceed three or four in number, and are born, on an average, one every two or three years. When told of the fecundity of the Europeans, they compare them contemptuously to their dogs. Twins, monstrous births, and miscarriages are very rare. In general the mother goes on with her usual occupations, till a few hours before her accouchement, and resumes them immediately after the child is born. The parents or midwife give it a name, taken from some animal, utensil, part of the body, or deceased relations. They prefer that of its grand-parents, whose memory they thereby wish to perpetuate. But if the latter died or were killed early in life, they avoid all mention of their names, in order not to renew the pain occasioned by their death. Nay, if a child has been called after a person, since deceased, they compassionately change the name for another. It also frequently happens that a Greenlander gets so many appellations from various ridiculous or shameful occurrences, that he hardly knows which to adopt, being determined on all occasions to choose the most honorable.

The fondness of the Greenlanders for their children is great. The mother carries them while walking, and doing all sorts of work, upon her back, and suckles them three or four years, having no other nourishment delicate enough for an infant. Many children die when they are forced to make room for others at the breast, being unable to digest the coarse food substituted for milk. Should a child be deprived of its mother in early infancy, it must inevitably follow her to the grave.

Their children grow up without any chastisement either by words or blows. Indeed severe punishment is not so necessary with Greenland children, who are

very quiet, sheepish, and not at all mischievously inclined. Besides, their disposition is such, that in case they cannot be prevailed upon to do any thing by entreaties or arguments, they would rather suffer themselves to be beaten to death than compelled to it. Whether this be their natural temper, or the effect of an unrestrained will, it is difficult to decide.

The interval between their second and fifth year in general forms an exception to the above remarks. They are then very restless, crying, scratching, and striking all that comes in their way; but should a mother suffer her patience to be exhausted and strike her child, especially if it be a son, who from his birth is regarded as the future lord of the house, she would ensure her husband's resentment. The nearer their children arrive at years of maturity, the more quiet and tractable they become. Very little of duplicity, self-will, or other gross failings, is observable in their conduct. They follow their parents willingly, because it suits their inclinations, but expect kind treatment in return, and if required to perform something against their will, answer calmly: "I will not do it." Ingratitude in up-grown children towards their old decrepid parents, is scarcely ever exemplified among them. Indeed their character seems in most respects to form an exact opposite to that of children born in civilized countries, whose inward depravity becomes more and more developed as they advance in years.

IV. As soon as a boy gets the full use of his limbs, his father puts a small bow and arrows into his hands, and makes him practise shooting or throwing stones at a mark on the sea-shore. He also gives him a knife to cut toys for his amusement. When his son is ten years old, he furnishes him with a kajak, that he may exercise himself in company with other boys in rowing, recovering his position when overset, and catching birds or fishes. In his fifteenth year he must attend his father in the seal fishery. Of the first seal which he catches, an entertainment is given to the neighbours and inmates of the family, during which the young adventurer re-

lates how he accomplished his exploit. The guests express their surprise at his dexterity, and praise the flesh as peculiarly excellent; and the females afterwards begin to choose a wife for him. Those who are unable to catch seals are held in the greatest contempt, and must live like the women upon ulks which they catch on the ice, muscles, and dried herrings. Many instances occur of those who are absolutely unable to attain the * art. When a young man is twenty years of age he must be able to manufacture his own kajak and fishing tackle, and to equip himself with every thing necessary for a Greenlander. Some years after he marries, but fixes his residence near that of his parents during their lifetime, employing his mother as housekeeper.

The girls do nothing till they are fourteen, but sing, dance, and romp about, except perhaps caring for a child, or fetching water. They are then employed in sewing, cooking, and dressing leather. When they acquire sufficient strength they must learn to row in a woman's boat, and help to build houses.

V. All up-grown women among the Greenlanders spend a life of slavery. While they remain with their parents they are well off; but from twenty years of age till death, their life is one series of anxieties, wretchedness, and toil. When their father dies, they inherit nothing, and must serve in other families, where they indeed do not lack a sufficiency of food, but are badly off for decent clothing. For want of this, especially if they are not handsome, or clever at their work, they must remain single. They never can make choice of a husband; and should any one marry them, they live for the first year, especially if without children, in continual dread of a divorce. If this takes place, they must enter into service again, and are often forced to barter their chastity in exchange for the necessaries of life. Even if a wife remains with her husband, she

* I once saw a stout young Greenlander in Kangek, who had never learned to manage a kajak, his mother having prevented him from going out to sea, lest he might share the fate of her husband and eldest son, who were drowned. He waited on the rest like a servant.

must serve as his mother's maid, and often put up with a blow in her face, besides perhaps being forced to pay her court to several other mistresses. When he dies she has no other jointure than what she brought with her, and must serve more submissively in another family on account of her children, than a single maid who can go away when she pleases. But if a widow happens to have up-grown sons, her situation is often preferable to that of a married woman, because she has their domestic concerns entirely at her disposal. Very old women generally pass for witches, and sometimes have no objection to this reputation, as it is attended with present profit: but most of them come to a lamentable end, as, upon the least suspicion of having bewitched some one, they are stoned, precipitated into the ocean, or stabbed and cut to pieces; and should they even escape this suspicion, if they become burdensome, they are often either buried alive, or compelled to throw themselves into the sea. The pretended motive of their relatives for such glaring impiety is compassion, but their real one is avarice.

In spite of all their cares, toils, and vexation, the women commonly arrive at a greater age than the men, who, by spending most of their time at sea, in snow and rain, in the severest winter, as well as during the heat of summer, and by alternate fasting and* gluttony, are so debilitated that they seldom attain the age of fifty. Besides, as many perish in the waves, the population of Greenland contains a greater proportion of females. The women frequently live eighty years and upwards. At this age those among them who are not condemned for witchcraft, uniformly become instruments of mischief, betaking themselves to lying, slandering, or match-making, to gain a livelihood; and above all, instil their ridiculous superstitions into the minds of young persons, thereby preventing them from a rational inquiry into the truths of Christianity.

* The Greenlanders generally pine themselves during the day, but gormandize so much the more at night.

VI. The method the Greenlanders make use of in dressing leather for their clothes, boots, and shoes, which is the chief employment of the women, is briefly as follows. For their hairy seal-skin dress, *kapitek*, they scrape the skin thin, soak it twenty-four hours in the urine-tub (*korbik*) to extract the oil, and then stretch it with pegs on the grass to dry. In the subsequent operation of dressing, it is sprinkled with urine, smoothed with a pumice stone, and softened by friction between the hands. The sole-leather is steeped several days in the urine-tub. They then scrape off the loosened hair with a knife or pull it out with their teeth, and lay the skin to dry. The leather called *erisek*, of which they manufacture the legs of boots, and the upper leather of shoes, is prepared nearly in the same way as the *kapitek*, but is scraped thinner. Of this they also make their great coats, which the men draw over their usual dress when they go a fishing. It is indeed soon soaked through and through by the salt-water and rain, but keeps the under-dress dry, and is often worn by European sailors. The smooth black skins (*ervgak*) worn on shore, besides undergoing the abovementioned preparation, receive an additional rubbing, which renders them more pliable, but at the same time unfit to keep out water, or for the manufacture of shoes and boots.

To cover their boats, they choose the strongest and thickest seal-skins. They leave a quantity of blubber on the inside, roll them up, and either sit upon them several weeks, or lay them under some grass in the sun, till the hair becomes loose. Then after being softened by lying a few days in salt-water, they are ready for covering women's boats and kajaks. In doing this they draw the borders of the skin together with their teeth, and then sew them up, afterwards daubing the seams with old seals' blubber instead of pitch, to prevent their leaking. Great caution must be used not to injure the surface of the leather, because if this is in the least damaged, the salt water soon corrodes it into holes. Pieces of waste leather they scrape thin, and lay them on the snow, or hang them up to bleach, sometimes color-

ing them with fir-bark, which they strip off branches driven near the shore by the waves. This operation is performed with the teeth. The skins of birds are first detached from the head, and then drawn over the body. After scraping off the fat with a muscle shell, they hand them about by way of a collation to guests of respectability, to chew between meals. They are afterwards soaked in the urine-tub, dried, and eaten. The skin on the backs of sea-fowl is manufactured into a thin, light under-dress, and that which covers their bellies into warm winter clothing. Of the skin of the neck, they make fine dresses for extraordinary occasions, turning the feathers outside.

VII. The different offices of husband and wife are far more clearly distinguished among them, than among Europeans. Each knows his own business, and never interferes in the other's affairs. The man makes his hunting and fishing implements, and the frame work of the boats, and his wife covers them with leather. He hunts and fishes, but having brought his booty to land troubles himself no further about it; for it would be a stigma on his character, if he so much as drew a seal out of the water. The women perform the offices of butchers, cooks, tanners, sempstresses, masons, and shoe-makers, furnished only with a crooked knife in the shape of a crescent, several large and small needles, a thimble, and their own teeth, with which they stretch the leather in tanning or currying. With the exception of the woodwork they build the houses and tents, and though they have to carry stones, almost heavy enough to break their backs, the men look on with the greatest insensibility, not stirring a finger to assist them. As some compensation for these toils, they have the entire management of the produce of the chace, excepting the blubber, which is sold by the husband; and in the absence of the latter they may feast without restraint. When all their provision is consumed, they will fast quite patiently, or eat the remnants of old shoes, and only the necessities of their children seem to afflict them.

When a married pair have no up-grown children, they frequently adopt one or more orphan boys and girls, or a widow, to assist in hunting or housekeeping, and to supply the future wants of the family. Though used as servants they suffer no compulsion. The boy is regarded as the future master of the house, and the girl is left to her own option, either to stay in the family, or to seek another situation. A master never inflicts blows upon his servant, and to strike a maid would be deemed a great reproach.

VIII. In the dirtiness and disorder of their housekeeping, the Greenlanders, at first sight, seem to resemble a society of gipsies. It is almost sickening to view their hands and faces smeared with grease, their food cooked and eaten so disgustingly, and their filthy clothes swarming with vermin. Yet an attentive observer will perceive an appearance of order and good management in some branches of their domestic economy, which though it may not counterbalance their uncleanliness, could scarcely be surpassed by Europeans in their circumstances; and their habitations with all their filthiness, have often afforded foreigners a welcome refuge from the fury of the tempest. Ten families frequently live in a house not much above ten fathoms long, and two broad, yet their confined dwellings and scanty furniture, are always in good order. As to the hunting and fishing accoutrements, the man is always repairing or improving them.

Such articles of dress as are not in daily use they lay by in leathern sacks, shaped nearly like a chest, and neatly embroidered with various devices. Their water-vessels are made partly of wood, ornamented with bone, partly of copper; and are kept so clean that an European would feel no disgust at drinking out of them, were the water not fetched in fœtid leathern buckets. Greenlanders are seldom seen easing themselves. They choose a sequestered spot, and are so delicate in this point that they will not eat any vegetables, not even the valuable scurvy grass, because they grow most abundantly in places frequented for this purpose. Their quiet, sociable

disposition is highly praiseworthy. There is less noise and confusion in a Greenland house inhabited by ten couples, with numerous children of different ages, than in a single European one, where only two relations reside with their families. When a Greenlander considers himself injured by his neighbour, he retires without any reprisals into another house. They assist each other willingly, and in some respects live in common, without any one becoming dependant or idle. Whoever returns in the evening after a successful fishing excursion, especially if it be in winter, when seals are scarce and difficult to catch, shares his provision with all the poor widows in the house, besides inviting several neighbours to his table. But no one, be he ever so poor and hungry, will beg for any thing to eat. Indeed the prevailing hospitality both towards friends and strangers, makes it perfectly needless, and is the more necessary and laudable, as they may sometime scour the bays for a circuit of several miles, without meeting with a single seal.

CHAPTER III.

Social Habits. — I. *Ordinary Intercourse with each other.* — II. *Visits and Feasts.* — III. *Traffic amongst themselves and with Europeans.* — IV. *Sun-feast. Diversions and athletic Exercises. Singing-combats.* — V. *Established Usages in defect of civil Polity.*

I. THEIR deportment in the social intercourse of every-day life is discreet, cautious, friendly, mannerly and modest. They are, however, perfect strangers to false shame, jealous reserve, or affectation, though they have the art of dissembling their wishes and inclinations. Their concern is not to shine among their equals, but to avoid rendering themselves ridiculous, and tarnishing their good name. If true politeness may be allowed to exist without artificial phrases, unmeaning compliments, and strange or ridiculous grimaces, the Greenlanders are a polite people. Salutations and marks of respect are indeed incomprehensible to them. They laugh to see an European standing bare-headed before his superior, or a servant submitting to ill-usage from his master. The children and domestics, however, show due reverence to age, and all behave respectfully to one another.

In company they are loquacious, and fond of ironical remarks. A satirical manner is more effectual in debating with them, than the most solid arguments or remonstrances, delivered in a grave, austere tone. If they are hard pressed in a dispute, they become head-strong and obstinate. They are anxious to please, or rather not to displease each other, and carefully avoid whatever might excite uneasiness. This principle seems to run through all their actions. No one interrupts another in the course of conversation; nor do they willingly contradict each other, much less give way to clamorous brawling. If an affront is offered, the injured party does not attempt to retaliate either by violence or abusive

language; their differences therefore seldom proceed to open quarrels, and their language does not furnish one single word expressive of abuse or execration. They laugh at what they think laughable, but most heartily when an European is the subject; yet their mirth is not rude or noisy. They are not ashamed of things which are not in themselves unnatural and indecent, nor will they bear to be reprimanded for them. They are however so complaisant as to forbear these rudenesses in the presence of Europeans, as soon as they understand that their company will otherwise be disagreeable.

II. In their visits, they carry with them a small present of eatables or peltry. If they are respectable and agreeable guests, they are welcomed with singing. All hands are employed in drawing on shore and unloading their boats, and every one is eager to have the guests in his own house. They meanwhile are silent, and wait till the invitations are repeated. On their entrance, their upper garments are taken off and laid upon the rack to dry. They are then accommodated with dry clothes and a soft skin for a cushion. The most honourable seat is the bench, which the Europeans generally decline. The men and women sit separate. The men converse very gravely on the subject of the weather and hunting; the women, after howling in concert for their deceased relatives, amuse themselves with stories. The snuff-horn, which is made of the antlers of the deer, elegantly mounted with tin or copper, is liberally handed round the circle; and they snuff up the contents with their nostrils, without any intermediate conveyance.

The entertainment is in the meantime laid out, to which the whole family, and occasionally some neighbours, are invited. The visitors seem to be vastly indifferent about what passes, and require much pressing to begin, lest they should appear poor or greedy. Three or four dishes are the customary compliment, but a large feast consist of more. A merchant, at a banquet to which he was invited, with several respectable Greenlanders, counted the following dishes: Dried herrings;

dried seals' flesh; the same boiled; half raw or putrid seals' flesh, called *mikiak*; boiled awks; part of a whale's tail in a half putrid state, which was considered as the principal dish; dried salmon; dried rein-deer venison; preserves of crowberries, mixed with the chyle from the maw of the rein-deer; and lastly, the same enriched with train-oil.

The table talk is kept up for several hours without any other topic than the seal-hunt. Their stories are indeed sufficiently lengthy, but they are told with such animation, that the hearers feel no inclination to yawn. If the harpooning of a seal for instance is described, they particularize time and place with the utmost minuteness, point out every movement made by themselves or the seal, imitate with the left hand all the windings and doublings of the animal, and with the right the motions of their kajak, their manner of holding the dart, taking aim, and finally piercing their mark; and all this with such truth and nature, that it is impossible to withhold admiration. The children who derive the chief profit from these narrations listen with deep attention; but they say nothing, except in reply to a question, and then their answer is short and modest.

If Europeans are in company, their accounts of their own country are received with pleasure. Relations of this kind, however, to be intelligible to them, must be illustrated by comparisons. For example: "A city or country has so many inhabitants, that such a certain number of whales will scarcely supply them with food for a day. They eat no whales in that country, but bread, which grows out of the ground like grass, and the flesh of animals which have horns; and they are carried about upon the backs of great and strong beasts, or drawn upon a wooden frame."

The auditors now call bread, *grass*; oxen, *reindeer*; and horses, *great dogs*. They wonder at every thing, and express a desire to dwell in so fine and fertile a country; but this inclination vanishes when they are told that thunder is frequent, and no seals are found there. They likewise listen with willingness to dis-

course about God and religion as long as no application is made to themselves, and their superstitious fables and customs allowed to pass uncensured.

When the feast is concluded, the strangers are hospitably directed to a sleeping place apart, and supplied with new pelts; but they sit up out of politeness, till the master of the house has retired to rest.

III. Their trading negociations are very simply and concisely conducted. They make mutual exchanges with each other for what they need: and as they have a childish fondness for novelty and variety, this bartering is carried on in some cases to an indefinite extent, and to the no small detriment of their domestic economy. The most useful article is bartered for a worthless trifle which chances to strike their eye, and a valuable bargain is rejected, if the offered commodity does not exactly please them.

They have no disposition to over-reach each other, still less to steal, which is considered as excessively disgraceful; but if they can contrive to cheat or rob an European, they boast of it, and plume themselves on their superior cunning.

Their commerce is partly amongst themselves, and partly with factors and sailors. Amongst themselves they hold a kind of fair. Every large concourse of Greenlanders, at a dance, or the winter festival of the sun, is frequented by persons who expose their wares to view, and make known what commodoties they want in exchange. Any one disposed to purchase, brings the goods in request, and the bargain is complete. The principal trade is in vessels of Weichstein, which is not to be met with in every place. And since the Southlanders have no whales, while the inhabitants of the north coast are in want of wood, numerous companies of Greenlanders make every summer, a voyage of from five hundred to one thousand miles out of the south, or even from the east coast, to Disko, in new kajaks and large boats. They barter their lading of wood for the horns of the narwhal, teeth, bones, and the sinews of

the whale, which they in part sell again during their return homewards.

They are so habituated to these migrations, which are well suited to their love of change, that if the motive of commerce were wanting, they could not bear to remain in one place. They take with them their whole family and substance, as several years elapse before their return. When arrested in their course by winter, they repair, if possible, to the neighbourhood of a colony, build a house, and arrange plans for their livelihood. The land and sea are open to them, and as some of these roving families occasionally settle along the coast, they every where find useful friends and acquaintances.

To the factors, the Greenlanders carry fox and seal-skins, but particularly blubber, for the sake of which, the traffic was properly set on foot. In exchange they receive no money; that is of no value whatever amongst them, and it is quite indifferent whether they have a piece of gold or a penny, glass beads or diamonds hanging round their neck. They esteem things of this kind merely because they shine, and instances are known of their giving a guinea or a Spanish dollar, stolen from seamen, for a few ounces of gunpowder or a bit of tobacco. Iron is in far more request, for they find it useful. They receive therefore from the factors according to a fixed price, iron heads for their darts, knives, saws, chisels, and needles; also striped linen and cotton, kersey-stuffs, woollen stockings and caps, handkerchiefs, boards, boxes, wooden and pewter plates, and copper kettles; with looking-glasses, combs, ribbons, and various trinkets for the children. Fowling-pieces and ammunition are eagerly purchased, though they in general are a source of detriment rather than profit, to their domestic affairs. Tobacco, which they use only in snuff, is their small coin. They expect a piece of tobacco for every service: with this drug they pay their shoemakers and tailors; they proffer, for a small quantity of it, a handful of eider-down, a parcel of eggs,

birds, a plate of fish, and the like; and for this many a poor, miserable, spendthrift barters the clothes from his back, and starves with his children, rather than part with the luxury; this article in fine, like spirituous liquors among other nations, is a fertile source of indigence and misery.

IV. The dancing assemblies and the feast of the sun, are not religious ceremonies, as amongst other heathens, but solely for diversion. The Greenlanders celebrate the sun-feast at the winter solstice on the 22d of December, as a rejoicing for the return of the sun and good weather for hunting. They crowd together to it in large parties from the whole country, entertain each other with their best cheer, and when they have eaten to satiety, for intoxication is impossible, the only beverage being water, they rise up to sport and dance.

Their only musical instrument is the drum, which consists of a hoop of wood or whalebone two fingers broad, of a rather oval form, a foot and a half in diameter, covered on one side only with a fine skin, or the integument of a whale's tongue, and furnished with a small handle. The performer holds it in the left hand, and strikes it with a small stick on the under surface, leaping up at each stroke, though he does not change his ground. This is accompanied with many wonderful motions of the head and whole body, and performed in common musical time, so that two strokes fall in every crotchet. He sings of the seal-hunt and their exploits in the chace, chants the deeds of their ancestors, and testifies his joy for the retrogression of the sun. The spectators do not sit in silence, but accompany each verse of his song with a reiterated chorus of *Amna Ajah, Ajah-ah-ah!* so that the first bar falls a fourth, and the next is begun a note higher, and so on. The musician sings four cantos in every act; the two first commonly consist of the constant theme Amna Ajah; the others are a recitative, where a short strophe without rhyme alternates with the chorus of Amna

Ajah. Taken together it forms a complete *Cantata*, e. gr.

The welcome sun returns again.
Amna ajah, ajah, ah-hu!
And brings us weather fine and fair.
Amna ajah, ajah, ah-hu!

The singer well knows hows to express the different passions by the soft or animated notes of the drum and the motions of his body, which is naked down to the hips. An act lasts a full quarter of an hour. When one performer is tired and bathed in perspiration, another steps into the circle. This they prolong the whole night through, and after sleeping the next day and again gorging their stomachs, they renew the sports in the evening. These revels are kept up for several nights, till all their provisions are consumed, or till they become too exhausted to articulate any longer. He who can make the drollest contortions of his body passes for the master-singer.

They likewise play at ball by moonlight. In this game, they separate into two parties. The ball is thrown from one to another of the same side, who endeavour to keep it to themselves, while it is the aim of the other party to wrest it from them. They also set up a goal, and exercise their agility at foot-ball.

They have several ways of trying their strength. Two competitors, for instance, strike each other with the fist on the naked back, and he who holds out longest is declared conqueror. The successful champion swaggers about, challenging others to the contest, till he likewise is drubbed to satiety. Again, they sit down and link their legs and arms together, and he that can out-pull the other is victor. Or they vary this contest, by hooking together their fingers, and then pulling. Sometimes they tie a cord to the beam of a house, suspend themselves to it by foot and arm, and throw themselves into many artful postures like rope-dancers.

Young people are fond of turning round a board upon an axle, with an index fixed to it, something like an

EO table, and he to whom the finger points, when its rotatory motion has ceased, wins the stake.

The children, and especially the girls, amuse themselves by joining hands, forming a ring, and striking up a skipping dance, accompanying it with their voices. Such dancing-meetings are also held at other seasons of the year, when their store-houses are full, and little can be done at sea.

The most remarkable circumstance is, that they even decide their quarrels by a match of singing and dancing, which they call the *Singing-Combat.* If a Greenlander thinks himself aggrieved by another, he discovers no symptom of revengeful designs, anger, or vexation, but he composes a satirical poem, which he recites with singing and dancing, in the presence of his domestics, and particularly the female part of his family, till they know it by rote. He then in the face of the whole country, challenges his antagonist to a satirical duel. The latter appears at the appointed place, and both parties enter the lists. The complainant begins to sing his satire dancing to the beat of the drum, and cheered by the echoing Amna ajah of his partisans, who join in every line, while he repeats so many ludicrous stories of which his adversary is the subject, that the auditors cannot forbear laughing. When he has finished, the respondent steps forth, and retorts the accusation, amidst the plaudits of his party, by a similar string of lampoons. The accuser renews the assault, and is again rebuffed; and this continues till one of the competitors is weary. He who has the last word wins the trial, and obtains thenceforward a reputable name. An opportunity is here offered of telling very plain and cutting truths, but there must be no mixture of rudeness or passion. The assembled spectators decide the victory, and the parties are in future the best friends.

This contest is seldom attended by any disorderly conduct, except that a man who is well seconded sometimes carries off a woman whom he wishes to marry. It serves a higher purpose than mere diversion. It is an excellent opportunity for putting immorality to the

blush, and cherishing virtuous principles; for reminding debtors of the duty of repayment; for branding falsehood and detraction with infamy; for punishing fraud and injustice; and, most of all, for overwhelming adultery with its merited contempt. Nothing so effectually restrains a Greenlander from vice, as the dread of public disgrace. And this pleasant way of revenge even prevents many from wreaking their malice in acts of violence or bloodshed. Still it is easy to see that the whole affair depends upon volubility of tongue; and the most celebrated satirists and moral philosophers of the Greenlanders, are generally the most profligate in their lives.

V. The drum-dances of the Greenlanders are then their Olympic Games, their Areopagus, their rostrum, their theatre, their fair, and their Forum. Here they cite each other to appear and decide their differences, without risking their lives in the duel, or wounding each other's honour by the envenomed pen. We cannot blame their method of disgracing malevolence, punishing guilt, and obtaining redress of wrongs, as long as they are savages without religion, and destitute of the very shadow of civil polity. They live as we may suppose the immediate descendants of Noah to have lived, before they learned to envy their fellow-mortals, and to rob each other of honour, property, freedom, and life. A father governs his family to the best of his ability, has no command beyond it, nor will he submit to the authority of any one. Thus also several families living together in the same house, do not in any way interfere with each other. They merely agree to repair the house in common, and to move in and out together, as many lamps are requisite to heat it properly. The men however generally defer to the superior wisdom of some senior father of a family, who is best skilled in the appearances of the weather, and in seal-catching. He occupies the north end of the house, and watches over its good order and cleanliness. If any one refuses to follow his counsels, no compulsion or punishment is employed; but the next winter all unanimously decline living under

the same roof with such a refractory person, and his faults are told him in a satire, if he is thought of sufficient consequence to deserve this chastisement.

Children remain with their parents as long as they live, even after marriage, and relations in general are solicitous to keep together, that they may have the benefit of mutual assistance in time of necessity. In their voyages the whole number of kajaks in company put themselves under the guidance of some considerable man, who is best acquainted with the way, but are at liberty to separate from him whenever they please. In short, no one desires to usurp authority over his neighbour, to prescribe laws to him, to call him to account for his actions, or to exact taxes for the public exigences. They have no superfluous wealth, and no opportunity of growing rich: their natural disposition is averse to any kind of compulsion, and the whole extent of the country is free to all.

They have however some useful traditional customs by which they regulate their conduct instead of laws; but these are very partially observed, since there is no punishment to enforce the execution, with the single exception of the satirical dance.

I will only mention in conclusion a few of their usages taken from Dalager. * Every one has liberty to choose his own place of abode; but if he finds a spot already occupied, he does not land till he has announced his intention, and intimation is given that his society will be welcome. The chace and fishery, the only riches of this country, are the common birth-right of all. No one can complain of a trespass, if an entire stranger comes to a rich fishing place, or even a salmon-wear built with much labour, on condition he does not spoil it or drive away the fishes. Should the stranger disturb the prior occupant, he will rather go away and starve than engage in a quarrel. Stranded wood or the wreck of a ship is the property of the finder, but he must haul it on shore,

* "*Account of the Customs and Manners of the Greenlanders.*"

and lay a stone upon it, in token that it is appropriated; if this is done no other Greenlander will meddle with it.

If a seal escapes with the javelin sticking in it, and is afterwards killed by another, it belongs to him who threw the first dart. If however it has been struck with the harpoon and bladder, and the line breaks, he loses his right. If two hunters strike the seal at the same time, they divide it. The same rules are observed with regard to fowls. Again, if any one finds a dead seal with the harpoon in it, he keeps the seal, but restores the harpoon to the owner. On the capture of a walrus, or other large sea animal, the harpooner claims the head and tail: of the rest of the carcase any one may cut as much as he can carry off. When a whale is taken, the very spectators have an equal right to it with the harpooners. On these occasions dreadful confusion ensues: several hundred men mount at once upon the animal, and eagerly fall to cutting it with their sharp knives; many are frequently wounded in the scuffle, but they bear no grudge on this account.

If several hunters shoot a reindeer at once, it is adjudged to him whose arrow has lodged the nearest to the heart, but the rest receive a share of the flesh. If one wounds it before another, he gains the booty, though the second cast the mortal dart. Since the use of muskets, no one knowing his own ball, many disputes arise in the chase which are not easily decided. If a man makes a fox-trap and neglects it for some time, another may set it and claim the captured animal.

A person lending his boat or tools, cannot demand reparation if they receive an accidental injury, except they were used without his knowledge. On this account they lend reluctantly. Any one who makes a purchase which does not suit him, may return it, and take back his equivalent. The purchaser can also take a thing on credit if he has not the means of payment at hand. If he dies without discharging the debt, the creditor must not afflict the disconsolate mourners by the remembrance of the deceased, but after some interval he may reclaim the article bartered, provided it is not lost in the

scramble which usually succeeds the funeral. This lenient system goes so far, that if a person loses or breaks an article taken upon credit, he is not held to his agreement.

These customs, which by their long standing have acquired the force of laws, appear somewhat strange to those who are accustomed to a different code, and are extremely perplexing to the factors. The Greenlanders themselves are sensible of the insufficiency and iniquity of many of these provisions, but are deterred from altering them by the dread of ill-report; and their grand argument against all objections is: "This is now the custom."

CHAPTER IV.

Morality of the Greenlanders. — I. *Their national character, disposition, &c.* — II. *Their sobriety, moderation, and abstinence from certain vices.* — III. *Some reasons for their refraining from these vices.* — IV. *The superficial and selfish nature of their morality.* — V. *Their dissimulation, want of feeling, and other vices.* — VI. *Confusion in their inheritances, and cruelty towards deserted widows and orphans.* VII. *Their blood-thirsty and revengeful spirit, procedure with witches.* — VIII. *Concluding remarks.*

1. We proceed to make a few observations upon Greeenland morals, in as far as morality can exist among a people, who have no religion or government, and who virtually live without God in the world. A correct notion of their national character is not easily attained. It has been drawn by some from the bright, and by others from the dark side, so that various contradictory reports have been spread upon the subject. Upon a superficial examination numerous pleasing qualities are discerned, which might put many nominal Christians to the blush, and which might easily impose upon those who have had no time or opportunity to search them to the bottom, and explore the labyrinth of their character through all its secret windings and recesses. Many undoubtedly have gone to the other extreme, and will not allow them even specious virtues, setting them down among the most barbarous and wicked nations upon earth. My observations would lead me to side with their admirers, as I had little opportunity to examine into their vicious practices; but by blending the accounts of both parties in as far as they are substantiated by evidence, we shall endeavour as much as possible to give a correct statement concerning the moral habits of this singular race.

If we take the term *savage* to imply a brutal, unsocial and cruel disposition, the Greenlanders are not en-

titled to the appellation. They are not untractable, wild, or barbarous; but a mild, quiet, and good-natured people. They live in a state of natural liberty without government, but in societies in some measure realizing the dreams of modern republicans. These societies which consist of several families in one house, or of several houses on an island, are not kept together by fixed laws, and an executive power to enforce them, but by a certain order mutually understood and spontaneously agreed to. They have in this way subsisted, probably for several centuries, with more quietness than the far-famed Athens or Sparta. The Greenlanders may, comparatively speaking, be called a happy people. Each follows the bent of his inclination, yet seldom injures his neighbour, except from motives of private revenge. Authority to punish the infringement of justice, is therefore not so indispensible among them as in civilized nations, where it is one of the greatest blessings of Heaven. Their lives, so hard and penurious in our eyes, are abundantly blessed with contentment. Had they any diet more costly than seals, they would no longer be able to pursue their present simple, uniform course of life, or find reason to pity Europeans for the multiplication of their desires. It is their poverty also which secures the permanency of their freedom. They have no treasures, like the Mexicans, to allure the hands of robbers, and have consequently to fear no wars, violence, or oppression, sleeping more peacefully in their lowly huts, than the great in their sumptuous palaces.

II. Several species of vice, so prevalent in civilized countries that no laws or penalties can stem the torrent, are scarcely ever observed among the Greenlanders. They are never heard to curse, swear, scold, or use abusive language, and with the exception of certain nicknames, bearing a significant allusion to some ridiculous or shameful occurrence, there is not one reproachful epithet in their language. No bawling, noisy laughter, contradiction, brawling disputes, or slandering, occurs in their assemblies. Though they are sometimes

very jocose, like to relate an unbecoming action with humorous contempt, and are very dexterous in forming double meanings, no immodest jesting, bitter mockery, obscenity or foolery, is heard amongst them. Lies, deception, and stealing are rare; violent robberies entirely unknown. Indeed to judge only by their external appearance, we should not suspect them of coveting other men's goods.

It is doubtless to be ascribed in part to their abstinence from spirituous liquors, that they are so little addicted to fighting and brawling, and can bridle their resentment with such Stoical firmness. Wanton and lecherous deportment is quite unprecedented among them. At the first sight of the indecency committed among the lower class of Europeans, they stood quite amazed, but accounted for it by saying: "The mad waters," that is, spirituous liquors, "have made them insane." Even in their dances and merry-makings, to which young and old resort, nothing is seen or heard that would put modesty to the blush; so that were it not for the drum and the droll figure of the dancers, a stranger ignorant of their language would almost conclude, that they were assembled for religious exercises, rather than for pastime.

III. This freedom from some particular crimes may partly be attributed to their phlegmatic disposition, partly to the absence of bad examples and incentives to vice. Entire abstinence from all stimulating food and intoxicating liquors, may doubtless also contribute a great deal towards retarding the growth of vices, which yet lie in embryo within them. The community of land, and the penurious simplicity of their house-keeping, also tend to prevent disorder. But poverty, which must restrain the commission of some evil practices, would undoubtedly operate as a stimulus to others, as theft and deceit, so that we must trace their outward shew of uprightness in all their dealings to another source. Due reflection aided by self-interest in the mind of any rational being, it may be said, naturally leads to this first principle of justice: "Do unto another

as thou wishest that another should do unto thee;" and ignorant as the Greenlanders are of all laws human or divine, they might in a great measure be deterred from crime by this simple axiom, and by the secret reproofs of conscience.

Their reasoning faculties are naturally as strong as those of other men. They sometimes use them to advantage in their concerns, and alas! but too frequently, misapply them. Yet upon a closer examination of the want of foresight and inconsiderateness, mostly manifested in their dealings, we shall be rather inclined to adopt a different solution of the problem. According to the ideas of Anderson on the subject, their apparently virtuous and upright deportment, proceeds chiefly from an inward impulse resembling the instinct of animals, which is nothing else than the secret working of the Deity. This hidden spring operates upon shame, fear, self-love and interest, as its agents. On this subject we shall trouble our readers with a few more remarks.

IV. The germ of evil lives within them, and their tendency to it is as natural and strong as in the rest of the human race; but fear of retaliation restrains them from many vices, and the dread of losing their character from more. A Greenlander dare not rob, kill, strike, or vent his anger against another either in word or deed, for such conduct might cost himself, or a dear friend, his life. Their deportment towards each other must be friendly and courteous, or they incur general disgrace, and are drummed out of society at the next singing combat. Young people, especially, who transgress in the least against decency or a becoming reserve, immediately forfeit their reputation and prospects in life. Their mutual affection, sociable and obliging disposition in domestic life, and their hospitality to strangers do not originate in benevolence, or sympathy with the helpless, as we shall presently see, but in self-love. From the uncertainty of their maintenance, a reciprocation of benefits is almost necessary to their subsistence. A free man assists his neighbour, that he may receive a similar favor in time of need. They must be bene-

ficent to strangers, in order that their fame for hospitality may be spread abroad, and that they may be entertained in return, when, according to their custom, they travel through the country, and have no time to procure their own provisions. In brief, the general character given by Christ * to all heathen, that they only love those that love them, and do good to those from whom they expect the same, is fully verified in the Greenlanders.

* They in fact proceed upon the same principles which influence the civil polity of regularly governed nations. Were the dread of exposure, or rather of just retribution removed, we should soon see in how far the native beauty of virtue could contend against the enormity of vice, or the marshalled powers of reason fight her battles against the radical corruption of the heart. And what is it that gives ignorant children, simple rustics, untaught heathens, the preference in the eyes of the learned before the polished classes of mankind? It is because they are relatively speaking bashful, and have not yet learnt to glory in their shame.

V. The Greenlanders are well versed in the false but fashionable morality of "*saving appearances.*" They are very dextrous in stealing the good opinion of others, or at least in avoiding public scandal; and it has often struck me, that many of our fine gentlemen might not be ashamed of learning from them in this respect. But their character will not bear the smallest scrutiny. Numerous proofs might be cited, that their brotherly love, for instance, as has been remarked, is only a mere sham, played off in hopes of speedy remuneration. When a stranger dies, leaving behind him no up-grown sons, or near relations, no one pays the smallest attention to his forlorn relict, except when they have occasion for her as their servant. Every door is shut against her, and after carrying off most of her goods, her countrymen are hard-hearted enough to see her perish with cold and hunger, without offering the smallest assistance. When

* Matt. ch. v

people on shore observe a kajak overset at sea, if it be not occupied by a near relation or friend, they can look on with the utmost unconcern, and even enjoy a savage delight in watching the struggles of the expiring sufferer. It would be too much trouble to set off in another kajak and save his life. Should they be incommoded by the cries and lamentations of the women and children, they sneak off. When they sail out in company with another, they will help him in difficulty, because it costs them little exertion. Their treatment of animals, we mean such as are not used for food, also displays an unfeeling heart, as even their children are exceedingly fond of torturing little birds, and watching them writhe with pain. Indeed both humanity and sympathy are so entirely excluded from their character, that they are not even found in the weaker sex.

On the other hand, the bonds of filial and parental love seem stronger in them than amongst most other nations. They scarcely ever suffer their children to go out of their sight, and a mother has often been known to throw herself into the water, when her child was drowned. This carelessness about the weal and woe of their fellow-creatures, with their ardent affection and tender anxiety for their offspring, goes to strengthen the notion, that the Greenlanders are in a great measure guided by an instinctive impulse, rather than by rational reflection.

Their wonderful inconsiderateness may also be adduced in support of this opinion. Their maxim seems to be, live while ye live, and care for futurity never enters their thoughts. When they see any thing which takes their fancy, be it ever so useless to them, they immediately purchase it, though at the expence of their most necessary articles, and would rather suffer want, than curb their desires. If they are obliged or helped out of a difficulty by any one, especially if he be an European, they know of no other acknowledgement than *kujonak*, (thank you,) and will seldom return the favor to their benefactor, when he is in need of their assistance. Those among them who have any finery about their dress,

strut about with a consequential air, sneering contemptuously at their fellows. This is also the case if they possess peculiar dexterity in any art, particularly in seal-catching.

Though they can smother their resentment for a length of time, if it once breaks out, it rages with senseless and brutal violence. Their will must be set through; and no remonstrances, however eloquent, will prevent them from carrying it into effect. This obstinacy, accompanied by a sly craftiness, is most conspicuous in the old, and proceeds partly from their want of reflection, and partly from their entire insubordination in childhood. It is a quality which is a source of great trouble to the missionaries, unless they can previously manage to divert them from forming their self-willed resolutions.

But it may easily be imagined, that the Greenlanders are not all alike in disposition, and that consequently the above remarks must not be understood without exception. There are some really considerate, beneficent characters among them, but they are very rare. Those are far more numerous, who, having deadened their sense of shame, and got rid of all dread of retribution, give themselves up to the most detestable and unnatural vices.

Lies and slander are most common among the women; the poor and indolent are also addicted to stealing, especially from strangers, and if they can purloin or even forcibly seize the property of a foreigner, it is a feather in their cap. Europeans, therefore, ought never to place much confidence in them, having frequently experienced their deception. Examples have occurred in which they have enticed a foreigner on shore, murdered him, and carried off his goods. On those foreigners, however, who have fixed their residence in Greenland, they dare not practice their roguish tricks, as they are liable to be apprehended and puuished.

Their outward show of modesty is not at all to be depended on. However careful their young and single people may be to avoid all open irregularity in their deportment, they are in secret quite as licentious as those

of other nations. Polygamy in the old does not always result from a desire of issue, but very frequently from pure lasciviousness. There are also among them harlots by profession, though a single woman will seldom follow this infamous trade. The married will break their vows on both sides with the utmost shamelessness, and though we might suppose that among such an uncultivated race, there could be no refinement in their licentious practices, the contrary is the case, for their women are as skilful in the language of the eyes as Turkish courtezans.

VI. Their unbounded self-interest, injustice, and even cruelty towards their helpless widows and orphans, are evident, from their strange distribution of their property after death. When a husband dies, his eldest son inherits his house, tent, and woman's boat, and besides must maintain the mother and children, who share the furniture and clothes amongst themselves. If the deceased has no up-grown son, the nearest relation cares for his relict, and brings up his children. If the relation has a tent and boat of his own, the inheritance and responsibility falls upon a stranger, for no one will keep several of these articles at once. When the sons of the deceased arrive at years of maturity, they get nothing of their father's property. Those who have once got possession of it retain it: but should the foster-father have no legitimate children, the foster-child inherits his goods, and in return provides for his surviving relations. So far there is however some appearance of order, but henceforward all their proceedings are unjust. As soon as the sons have grown up and commenced seal-catchers, all their earnings are entirely at the disposal of the widow; and should she forget her old benefactor, and desert his helpless offspring, there is no one to appeal to for redress. It may then be easily imagined, that the care of widows and orphans is much neglected, owing to the small likelihood of advantage from it, especially if they are entirely destitute. Many boys are forsaken in their youth because it is expensive to provide them with a

kajak, and the necessary implements; but still more poor unfortunate females perish from nakedness and starvation: but this is not the worst. When a poor widow lies distracted with grief upon the ground with her children, weeping for the loss of her husband, all his goods and chattels are slyly conveyed away by her hypocritical comforters. The miserable wretch, stripped of her all, has no one to appeal to, nor any other resource, but to insinuate herself into the good graces of him who has robbed most: he generally maintains her a short time. When he is tired of her, she must try to gain the favor of another. At last she and her children are left to their fate; and after protracting a miserable existence for a short time by means of fishes, muscles, and sea-weed, they must finally be starved, or frozen to death for want of cloathing and lamp-oil. This probably is one reason why the Greenland nation diminishes from year to year.

VII. The punishment of criminals is still more disorderly and savage. None are put to death but murderers, and such witches as are thought to have killed some one by their art; but with regard to these, they proceed with such temerity and revenge, that at last no one is sure of his life. The Greenlanders, as was before stated, are naturally of a murderous disposition. Perhaps their constant employment in butchering seals and other creatures, which proceeds from hereditary inclination, may, in a wicked heart, awaken the unnatural desire to spill the blood of their fellow-creatures. Few, however, are so fiend-like as to kill from pure bloodthirstiness. Some will do it from envy at another's dexterity or wealth; but most out of revenge.

The assassin generally effects his purpose by stealth, on the water. He either drowns his enemy by oversetting him in his kajak, or throws a harpoon into his back, leaving the dead body to be driven about by the waves. Should the deed come to the ears of the murdered person's friends, they smother their resentment, not suffering a word about it to transpire, lest the assassin or his spies should despatch them to prevent reprisals. But

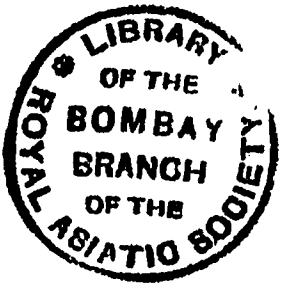
instances have occurred, in which they did not forget to revenge the death of their relation thirty years after, when they found the murderer alone. The usual method is to attack him on shore, explain in a few words the reason of their conduct, kill him with a stone or dart, and throw his corpse into the sea. When highly enraged, they will cut the body to pieces, and devour part of the heart or liver, thinking thereby to disarm his relatives of all courage to attack them. If the punished criminal be a notorious offender, or hated for his bloody deeds, or if he have no relations, the matter rests: but in a general way the punishment costs the executioner himself, his children, cousins, or other relatives their lives; or if these are inaccessible, some other acquaintance in the neighbourhood. Thus the tragedy is prolonged through a series of murders, till quite innocent persons fall sacrifices to unbridled revenge.*

The procedure with witches is very short. When the report is spread, that an old hag has power to bewitch, which she brings upon herself by pretending to charms and nostrums, if only a man's wife or child dies, his arrow does not strike the mark, or his gun misses fire, an Angekok or soothsayer pronounces sentence upon her. Has she no relations, she is punished as above described. Sometimes old men also are put to death for similar misdemeanors. A man has sometimes stabbed his own mother or sister, in presence of all the people in his house, and no one has upbraided him in the least for it. But if the slain has near relations, they seek to revenge her death, and a succession of murders follows as before. When persons accused in this way have lost all hope of escape, they often throw themselves into the sea, that they may not be torn piecemeal and become a prey for the ravens.

* The lust of revenge, is sometimes handed down as a birthright from father to son, without the smallest intimation of it till the proper time. But after they are truly regenerated, their revengeful spirit ceases, and they no longer remember old injuries, but love each other heartily.

VIII. It seemed necessary in the preceding pages to be rather more explicit on the vices than the seeming virtues of the Greenlanders, who may after all be reckoned among the most simple and least corrupted heathens, in order to give an idea of the secret springs and machinery which direct their conduct. Previous dazzling accounts of their excellent qualities, had co-operated with the splendid descriptions of both ancient and modern heathenish morality, to strengthen the notion that the virtue of pagans, may in some respects rise paramount over christianity itself, and that the former have been led into many vices unknown to them before, by the bad examples and allurements of christians. The idea finds easy access to the mind, that the light of reason is sufficient to direct men on the path of virtue, and that divine illumination is not indispensibly requisite to lead a life pleasing to God. This is well known to be the corner stone of deism. Preachers ought therefore to be very careful, how they hold out the example of virtuous heathens as an incitement to their auditory. Such comparisons can do no good, and may be productive of mischievous consequences. They may increase the natural propensity of all men to self-working, besides presenting deists and atheists with their best weapon, to attack the necessity of an atonement and the doctrines of revelation. They may also generate loose notions respecting the conversion of the heathen, and lead us to imagine that missionary labours chiefly consist in giving them a correct idea of christian truth, as they are previously inclined by nature to a regular and virtuous course of life. It is undoubtedly true that we may allow these heathens in many respects the preference before corrupt nominal christians, because they really avoid many vices, not only from the absence of bad examples, means, and opportunities, but from a sense of shame. They display a power of discrimination, though it be not very nice, beween right and wrong, but their native torpidity and disinclination to reflection, prevent them from paying due regard to the dictates of conscience, and consequently from regulating their conduct

according to fixed principles. It will doubtless be no small plea in their favour, that they direct their course more correctly by the dim light of reason, than many christians who see the right path straight before them, in the clear sun-shine of revelation. They will thereby avoid many stripes which others earn by their licentiousness, and utter contempt of offered grace.



CHAPTER V.

Religion or Superstition of the Greenlanders.—I. *They have no religious worship, but are not without some idea of a Supreme Being. Remarkable declaration of a Greenlander on this subject.*—II. *Various conceptions of the soul and its immortality.*—III. *Notions of a future state.*—IV. *Traditions respecting the creation, the flood, and the resurrection.*—V. *Two Great Spirits, a good and a bad one.*—VI. *Inferior spirits and apparitions.*—VII. *Angekoks or wizards: their initiation and juggling practices, and extraordinary pretensions.*—VIII. *Individuals of real merit to be found amongst them; fanatics—impostors—Illiseetsok.*—IX. *Their prescriptions, spells, aad charms.*

I. The preceding considerations lead us to make a few remarks upon the religious creed, or rather the superstition, of the Greenlanders. Upon this subject it is very difficult to give any definite information, on account of their extreme ignorance, thoughtlessness, credulity, and especially their diversity of opinions, as each is perfectly free to adopt what tenets he pleases.

Before any missionaries arrived in the country, the Greenlanders were supposed to be gross idolators, who prayed to the sun, and sacrificed to the devil, that he might be propitious to them in their fishery. Mariners were not led to these conclusions from the discourse of the natives, which they could not understand, but from a variety of circumstances. They saw that the Greenlanders every morning, as soon as they rose up, stood on some eminence, apparently buried in thought, with their eyes directed to the rising sun, in order to conjecture from the colour of the sky or the motion of the clouds, whether fair or stormy weather was to be expected. This is still their regular practice. The sailors, who were ignorant of their motive, imagined that they were

paying their devotions to the rising luminary. Others observed, in deserted places, numerous square inclosures surrounded with stones, and on one elevated stone found some cinders, with a heap of bare bones lying upon them. This was quite sufficient to induce the belief that Greenlanders had sacrificed there; and to whom should they sacrifice but to the devil? These people had seen no summer-residence of the Greenlanders, who pitch their tents in such rectangular inclosures, and use the above mentioned coals for cooking their provisions. They have in fact no apparent worship, either religious or idolatrous, nor any ceremonies which might be construed into the service of the Deity. There is, indeed, no word in their language for the Divine Being, from whence the first missionaries were led to imagine, that they had no conception whatever of a divinity. Upon being asked who made the heavens, earth, and every thing around them, they answered: "We cannot tell;" or, "We know him not;" or, "It must have been a very powerful man;" or, "These things have always existed, and must endure for ever." But after obtaining a more intimate acquaintance with their language, the missionaries were led to entertain a contrary opinion, from their various notions concerning the soul and spirits in general, and from their evident anxiety about their probable state after death. From free conversations with the natives in their perfectly wild state, in which, however, care must be taken to make no personal applications, and not to insist upon any duties to which they are disinclined, it is very apparent, that their forefathers believed in a Being who resides above the clouds, to whom they paid religious worship. But this belief has gradually died away, in proportion as they became isolated from all communication with civilized nations, till they have lost all clear notions of a Deity. That they have still some obscure and concealed idea of a Divine Being is apparent from the circumstance, that though they shun any professional belief in the truths of Revelation out of dread of their consequences, they never offer any opposition, but rather

give a silent assent to the doctrines of a God and his attributes. It is only their natural slowness, stupidity, and thoughtlessness, which prevent them from digesting their dark notions into a regular system, by due reflection upon the works of Creation, and upon their own anxiety concerning futurity. The following incident indeed makes it probable, that some of them, at least in youth, before they were buried in the cares of providing for their families, have made some inquiry into the subject.

A company of baptized Greenlanders one day expressed their astonishment, that they had spent their lives in a state of such complete ignorance and thoughtlessness. One of the party immediately rose up and spoke as follows: "It is true, we were ignorant heathens, and knew nothing of God and of a Redeemer; for who could have informed us of their existence, before you, (addressing the missionaries,) arrived. Yet I have often thought, a kajak with the darts belonging to it, does not exist of itself, but must be made with the trouble and skill of men's hands; and he who does not understand the use of it easily spoils it. Now the least bird is composed with greater art than the best kajak, and no man can make a bird Man is still more exquisitely framed than all other animals. Who then has made him? He comes from his parents, and they came again from their parents. But whence came the first man? He may have grown out of the earth. But why do men not grow out of the earth now-a-days? And from whence do the earth, sea, sun, moon, and stars proceed? There must necessarily be some one who has created every thing, who has always existed and can have no end, He must be inconceivably more powerful and skilful than the wisest of men: He must also be very good, because every thing that he has made is so useful and necessary for us. Did I but know Him, what love and respect should I feel for Him? But who has seen or conversed with Him? None of us men. Yet there may be men, too, who know something about Him. With such I should willingly converse. As soon therefore as I

heard from you of this great Being, I believed you immediately and willingly, having for a length of time longed after such information." This declaration was confirmed by the statements of the others with more or fewer circumstances. One of the company made this additional remark: "A man is formed differently from all other animals. These serve each other for food, and all of them are for the use of man, and have no understanding. But we have an intelligent soul, are subject to no one in the world, and yet are anxious about futurity. Of whom can we be afraid? Surely it must be of some mighty Spirit who rules over us. Oh, that we but knew him! that we had him for our friend!"

II. All this tends to confirm the assertion of the great apostle of the Gentiles: "Because that which may be known of God is manifested in them, for God hath shewed it unto them. For the invisible things of Him from the creation of the world," &c. (*Rom.* i. 19, 20, 21.) The universal report of all travellers informs us, that no people have hitherto been discovered who have not some notion of a Deity, be it ever so dark and erroneous. Even the stupid Greenlanders in their various opinions concerning the soul of man, and other greater and inferior spirits, give sufficient proof of the scriptural declaration. There are indeed some who believe, that their soul is not immortal or different from the living principle in other animals; but these are either of the most stupid sort, who are ridiculed by their companions, or else wicked cunning men, who profess such opinions for their own private emolument.

Others describe the soul as a being so nearly allied to matter, that it may be taken out and replaced, be divided into a number of parts, lose a portion of its substance, be repaired when damaged, and even go astray out of the body for a considerable time. Some even pretend, that when going on a long journey they can leave their souls at home, and yet remain sound and healthy. These wonderful chimeras have probably originated either in home-sickness, during which their thoughts are continually busied about their birth-place,

or else in such maladies as weaken, or even for a time derange their mental faculties.

Some of these materialists believe in two souls, namely the *shadow* and the *breath* of man, and suppose that in the night the shadow forsakes the body, and goes a hunting, dancing, or visiting. In all probability, their dreams which are numerous, lively, and often remarkably curious, have given rise to this notion. It is upon such people that the Angekoks principally depend for sustenance, since it is their business to repair damaged souls, bring back those which have gone astray, and even change them when diseased past cure, for the sound and healthy souls of hares, reindeer, birds, or young children.

The notion that the soul can forsake the body during the interval of sleep, and be exchanged for that of some animal, is chiefly credited by those who believe in the migration of souls, a doctrine which has lately been discovered among the Greenlanders. It is chiefly held by helpless widows in order to obtain kind treatment: for if a widow can persuade any parent that the soul of her deceased child has migrated into his son, or that the spirit of his deceased offspring animates the body of one of her children, the man will always do his best to befriend the supposed soul of his child, or in the other case consider himself nearly related to the widow. *

But the most intelligent Greenlanders maintain, that the soul is a being purely spiritual, entirely distinct from the body and from matter in general, that it requires no earthly sustenance, and that while the body corrupts in the grave, it shall even retain its life and consciousness, nourished by some etherial substance of the nature of which they are ignorant. The Angekoks, who profess to have paid frequent visits to the land of souls, describe them to be soft, yielding, and even intangible to those who attempt to seize them, having neither flesh, bones, nor sinews.

III. Hence we may easily imagine their ideas concerning the state of spirits after death. In general they

* See Note XII.

represent it to be unchangeable, unceasing, and much more happy than this mortal life; but concerning the situation and privileges of the beatific abode of departed spirits, their opinions vary. Since the Greenlanders obtain their best and principal sustenance from the sea, many have placed it in the depths of the ocean or under the earth, and suppose the deep chasms in the rocks to be its avenues. There dwells Torngarsuk and his mother. There is perpetual summer, and clear sunshine uninterrupted by night. There is the limpid stream, and a superabundance of birds, fishes, seals, and reindeer, which may be caught without trouble, or are even found boiling alive in a large kettle. But this is only to be the abode of such as have been inured to labour, which in their estimation is the chief of virtues, who have performed such mighty exploits as killing whales and seals, or endured numerous hardships, including those who have been drowned in the sea, or died in child-birth.

It is therefore evident that they have some faint idea of rewards and punishments. Departed spirits do not however make a joyful and immediate entrance into these Elysian fields, but must first slide for the space of five days, or, according to others, for a still longer period, down a rough rock, which the Greenlanders, by a strange contradiction, represent to be quite bloody. Whether this invention has its foundation in any notion of the purging of souls, or is only according to the adage *per aspera ad astra*, cannot be determined. They always lament the fate of those poor souls, who have to undertake their journey in cold, stormy weather, during which they may easily perish. This is called the second death, from which there is no recovery. The survivors therefore for five days after the decease of their relative, abstain from certain meats, and from all bustling work, exclusive of the capture of seals, that the spirit may not be disturbed or lost upon its dangerous expedition. It appears probable from several circumstances, that their forefathers offered up sacrifices for the souls of departed relatives. So much is evident, that the stupid Greenlan-

ders, as well as the enlightened heathen of ancient times, shudder at the thought of absolute annihilation.

Those among the natives who are more struck with the beauty and majesty of the heavenly bodies, seek for the happy residence of the dead, in the highest heavens, above the rainbow. They describe the passage to it to be so quick and easy, that the souls the same evening in which they leave the body, arrive at the moon, who was formerly a Greenlander, put up at his house, and dance and play at ball with their companions. They afterwards encamp about a large lake stocked with vast quantities of fishes and birds. When this lake overflows it rains upon the earth. Should the dam break down, there would be an universal deluge.

The first party, on the contrary, maintain that only useless idle people, ascend into the sky, suffer great want there, are very lean and feeble, and besides have no rest owing to the rapid circumvolution of the heavens. This is especially the case with wicked members of society, such as witches, who are so tormented by ravens, that they cannot prevent these birds from tearing their hair. The other sect, however, will not allow this to be their lot. By their own account, they repair to a large assembly of their equals, and feast upon seals'-heads, which though continually devoured, can never be consumed.

But those who reason more rationally, and consider the soul to be an immaterial substance, laugh at all those absurdities, and affirm that a paradise so nearly resembling our mortal state, and where the souls are engaged in such earthly pursuits, cannot last long. By their accounts, the souls pass after death into tranquil abodes. Of their sustenance and occupations they do not pretend to know any thing. On the other hand, they describe hell to be a gloomy subterranean mansion filled with everlasting horror and anguish. Such generally lead an orderly life, and abstain from every thing which they conceive to be sinful.

IV. Whoever is acquainted with the corrupt ideas of

ancient philosophers, concerning the soul and a future state, will not wonder at the stupidity of the Greenlanders on these subjects, but rather observe a penetration and insight which does not mark their ideas and conduct in general. Their dim conceptions of religious truth we may conjecture to be some small remnant of the light possessed by the first men, and preserved through the progress of tradition, which in proportion as their posterity removed to a distance from the seat of civilisation, would of course become more and more obscured by the idle fancies of superstition. According to all accounts of the North Americans and Asiatic Tartars, their way of life, manners, and opinions coincide in a great measure with those of the Greenlanders, though the latter in proportion to their greater isolation and farther removal to the north, have lost more of the ideas and customs of their forefathers. The Greenlanders may also have obtained some information on religious subjects from the old Norwegian christians, and afterwards have forgotten or altered it according to their own way of thinking; especially as the remnant of the Norwegians were in all probability incorporated with the Aborigines of the country.

Similar traditions exist among them concerning the creation, the end of the world, and the deluge, which are in part not more erroneous and contradictory than the opinions of the Grecks in the fabulous ages. We shall only mention a few of them. The first man, whom they call *Kallak*, rose out of the earth, and soon after, a woman was formed out of his thumb, from whom sprang the whole human race. To the latter many also ascribe the origin of the vegetable and animal creation. The woman is said to have brought death into the world, by saying, "Let these die, that those who follow after may have room to live." A Greenland woman brought forth the *Kablunæt* (foreigners), and some dogs which devoured their father. One of these foreigners having used contemptuous expressions to a Greenlander, because he could strike no birds, was killed by the latter

with a dart. A war immediately took place, in which the Greenlanders proved victorious, and exterminated all the strangers. This last tradition has an evident allusion to the massacre of the old Norwegians, for whom the natives harbour such a deep rooted hatred, that they ascribe their origin to the transformation of dogs into men. Fishes were produced from chips of wood which a Greenlander threw into the sea. Of the deluge, concerning which almost every heathen nation has some notion, the missionaries found a very plain tradition among the Greenlanders, namely, that the world was turned upside down, and all the inhabitants drowned, with the exception of those who were transformed into spirits of fire. One man remained alive, who afterwards struck the ground with a stick, upon which a woman rose out of it, and they peopled the world anew. They also relate that farther up in the country, where no men have ever resided, remains of fishes, and whalebone are to be found on the top of a mountain, from which they justly draw the conclusion, that the earth has been covered with an inundation.

Of the end of the world, and the resurrection of the dead, they have scarcely any idea. Some of them, however, affirm that souls loiter near the graves of the bodies which they animated, for five days. The latter then rise again, and pursue the same course of life in another world, which they were accustomed to in this. They therefore always lay the hunting implements of a deceased person near his grave. This childish opinion is, however, ridiculed by more observant Greenlanders, who perceive that the deceased and his weapons remain unmoved, and go into corruption together. The following idea seems to bear more evident marks of a tradition relative to the resurrection, and is the more remarkable, as it involves belief in a superior Being. They say, that after the death of the whole human race, the solid mass of the earth will be shattered into small fragments, which will be cleared by a mighty deluge from the blood of the dead: a tempest will then unite the purified particles, and give them a more beautiful

form. The new world will not be a wilderness of barren rocks, but a plain clothed with everlasting verdure, and covered with a superfluity of animals; for they believe that all the present animal creation will be revivified. As for the men, *Pirksoma*, i. e. He that is above, shall breathe upon them: but of this personage they can give no farther account.

V. Besides the soul of man, the Greenlanders speak of other greater and lesser spirits, which bear some affinity to the gods and demi-gods of the ancients. Two are pre-eminent, a good and a bad divinity. The good is called *Torngarsuk*. He is the oracle of the Angekoks, on whose account they undertake so many journeys to his happy subterranean regions, in order to confer with him about diseases, and their cure, fishing, and the changes of the weather. Their accounts of his person differ very much. According to some he is of small stature. Some affirm that he resembles an immense white bear; others a giant with one arm; while others again contend that he is no bigger than a man's finger. He is, however, allowed by all to be immortal, but yet might be killed, were any one to break wind in a house where witchcraft is carrying on.

The other great but mischievous spirit, is a female without name. Whether she is Torngarsuk's wife or his mother, is not agreed. The natives of the north believe, that she is the daughter of the mighty Angekok, who tore Disko island from the continent near Baal's River, and towed it an hundred miles farther north. This northern Proserpine lives under the ocean, in a large house, in which she enthrals all the sea-monsters by the efficacy of her spells. Sea-fowls swim about in the tub of train under her lamp. The portals of her palace are guarded by rampant seals which are exceedingly vicious. Yet their place is often supplied by a large dog, which never sleeps longer than a second at a time, and can consequently rarely be surprized. When there is a scarcity of seals and fishes, an Angekok must undertake a journey to her abode for a handsome reward. His Torngak or familiar spirit, who has previ-

ously given him all proper instructions, conducts him in the first place under the earth or sea. He then passes through the kingdom of souls, who spend a life of jollity and ease. Their progress is soon after intercepted by a frightful vacuity, over which a narrow wheel is suspended, and whirls round with wonderful rapidity. When he has been fortunate in getting over, the Torngak leads him by the hand upon a rope stretched across the chasm, and through the sentry of seals, into the palace of the fury. As soon as she espies her unwelcome guests, she trembles and foams with rage, and hastens to set on fire the wing of a sea-fowl, for the stench of this would enable her to take the suffocated Angekok and his Torngak captives. But these heroes seize her before she can affect the fatal fumigation, pull her down by the hair, and strip her of her filthy amulets, which by their occult powers enslave the inhabitants of the ocean. The enchantment being dissolved, the captive creatures directly ascend to the surface of the sea, and the successful champion has no difficulties whatever on his journey back. They do not however think, that she is so malicious as to aim at making mankind eternally miserable, and therefore do not describe her dwelling as a hell, but a place abounding in the necessaries of life; yet no one desires to be near her. On the contrary, they greatly venerate Torngarsuk; and though they do not hold him to be the Author of the Universe, they wish after death to go to him and share in his affluence. Many Greenlanders, when they hear of God and his Almighty power are easily led to identify him with Torngarsuk.* They honour the latter as much as ancient heathens did Jupiter, Pluto, or their other principal divinities, yet they do not regard him as that

* The very etymology of the word seems to denote that they at least formerly regarded him as a Divinity. They call the soul of man *Tarngek*; a spirit ingenera', *Torngak*; a great spirit in their language is *Torngarsoak*, which is abbreviated into Torngarsuk. The Indians of America also generally denominate the Divine Being, the Great Spirit, in contradistinction to the Manitu or lesser spirits, who inhabit all creatures, animate and inanimate.

Eternal Being, to whom every thing owes its existence. They pay him no religious honours or worship, regarding him as much too beneficent a being to require any propitiations, bribes, or entreaties; though it cannot well be construed into any thing but a sacrifice, when a Greenlander lays a piece of blubber or skin near a large stone, very often part of the flesh of that rein-deer, which is the first fruits of the chase. They cannot assign any other reason for this proceeding, except that their ancestors have done so before them, in order to ensure success in hunting.*

VI. No one but an Angekok can obtain a sight of the greater spirits: but with the inferior sort, which inhabit all the elements, most pretend to have some acquaintance.

In the air dwells a certain *Innua*, (a possessor,) whom they call *Innerterrirsok*, the forewarner, because he informs the Greenlanders, through the medium of an Angekok, from what they are to abstain, if they wish to be fortunate. Their *Erloersortok* also inhabits the air, and lies in wait for those souls which pass upwards, in order to take out their entrails and devour them. He is described to be as lean, gloomy, and cruel as a Saturn. The *Kongeusetokit* are marine spirits: they catch and devour the foxes, who frequent the strand in order to catch fish. There are also spirits of the fire called *Ingnersoit*, who inhabit the rocks on the sea shore, and appear in the form of the meteor, vulgarly called jack-with-a-lanthorn. They are said to have been the inhabitants of the world before the deluge. When the earth was turned round and immersed in water, they changed themselves into flames, and took refuge among the rocks. They frequently steal away men from the strand, in order to have companions, and treat them very kindly. The *Tunnersoit* and *Innuarolit* are mountain spirits; the former six ells, and the latter only six inches long, but at the same time exceedingly clever. These latter are said to have taught the Europeans their arts. The *Erkiglit* have dog-like countenances. They are warlike spirits, and cruel enemies of

* See Note XIII.

mankind; but inhabit only the east-side of the country, and are perhaps meant to signify the remnant of the ancient Normans. *Sillagiksartok* is the Æolus of Greenland. He dwells upon an ice-field, and regulates the weather. The water has its peculiar spirits; and when the Greenlanders meet with an unknown spring, in case there is no Angekok at hand, the oldest man in the company must first drink of it, in order to rid the water of any malicious spirit. When certain meats prove detrimental to any one, especially to women who are great with child, and have infants at their breasts, the *Nerrim Innuet*, (masters of diet,) are blamed for enticing them to eat contrary to the rules of abstinence. Both the sun and moon are inhabited by their separate spirits who were formerly men; and the air itself is a spiritual intelligence which men may irritate by criminal conduct, and apply to for counsel; a notion which can surely not excite much surprise amongst those, who, according to the fashion of the day, are accustomed to call upon the heavens for their direction and blessing. If a man of some genius would undertake to reduce the Greenlandic superstitions to a regular system, they might perhaps rival the mythology of the Greeks and Romans, in every thing but its obscenity.

The Greenlanders also relate many stories of ghosts, and imagine that all monstrous births are changed into bugbears, which scare away the birds and seals. The Angekoks alone can see such a spirit or *Anjiak* and seize it in the air. When engaged in this kind of hunting, they must be blindfolded, and as soon as they have made themselves sure of their game, either tear it to pieces or devour it immediately.

That they also believe in apparitions of the dead, is plain from the following well authenticated* relation.

A boy while playing in a field at noon-day, was suddenly seized by his mother, who had been buried in the place, and addressed in words like these: "Fear not; I am thy mother, and love you much; you will come to strange people, who will instruct you in the know-

* See Captain Egede's Continuation, p. 74.

ledge of Him who created heaven and earth, &c." The story was related by the boy himself to a missionary after his baptism, and confirmed by many others.

VII. A Greenlander previous to assuming the office of *Angekok*, or diviner, must procure one of the spirits of the elements for his *Torngak* or familiar. Marvellous tales, framed to support the belief of a real intercourse with spirits, are related of the manner in which this illapse takes place. The aspirant must retire for a time into a desert, cut off from the society of every human being, and spend his solitude in profound meditation, or in invoking Torngarsuk to send him a Torngak. This separation from mankind, his fasting and emaciation of body, together with the severe exercises of his mind, throw the imaginative faculty into disorder; and various figures of men, beasts, and monsters, swim before his disturbed brain. He readily supposes these to be real spiritual existences, since he thinks of nothing else, and this throws his body into violent convulsions, which he labours to cherish and augment. Some who are destined to the art from infancy, distinguished by a particular dress, and instructed by celebrated masters, find little difficulty in the initiation. Several however give out that they sit down on a large stone, invoke Torngarsuk, and tell him their desire. On his appearance the aspirant shrieks out and dies, and lies dead for three whole days, at the end of which time he comes to life, and receives s Torngak, who, on his desire, instils into him all power and knowledge, and conducts him on his journey to heaven and hell.

This expedition can be made only in the end of the year. The way is shortest in winter when the nights are long and dark, and the rainbow, which is their first heaven, presents itself in the greatest proximity to the earth. The Angekok begins the ceremony with drumming, and whirls himself round with frightful contortions, till his frame is exhausted, and his spirits worked up to the proper pitch of enthusiasm. He is then led to the entry of the house; one of his pupils ties his head between his legs, and his hands behind his back; all the lamps are extinguished, and the windows closed.

No one must witness his interview with the spirit, nor move a finger while it is going on, lest the spirit should be disturbed, or rather, lest the fraud should be detected. After beginning a song, in which all join, he groans, and puffs, and foams with great perturbation, demanding his familiar, who is frequently very slow to come. If the Torngak absolutely refuses to make his appearance, the soul of the wizard sets out to fetch him. After a short absence he returns with a loud laugh of joy, accompanied, as a sensible European, who had several times been present, assured me, with a rustling resembling the noise of birds flying over the roof, and then swooping down into the house. If, however, the Torngak comes voluntarily, he remains without at the entrance of the avenue; and there the Angekok consults him on any subject, respecting which the Greenlanders wish for information. Two different voices are distinctly heard, the one on the outside of the house, the other within. The answer is always dark and ambiguous. The hearers unravel it amongst themselves, and if they are not unanimous in their explanation, they beg the Torngak to give the Angekok a clearer response. A strange Torngak sometimes comes, whom neither the Angekok nor the auditors can understand; so that the answer requires as much labour to develope it as those of the Delphic oracle, and leaves sufficient room for the sorcerer to exculpate himself, however the prediction turns out.

But if his commission extends further, he soars aloft with his Torngak on a long string, up to the realm of souls, where he holds a short conference with the *Angekok Poglit*, the Fat or Famous Sages, and learns the fate of a sick patient, or even brings him back a new soul; or else he wings his way downwards to the Goddess of Hell, and liberates the animals detained by enchantment. But he soon returns, and having found means to disengage himself from his fetters, begins to howl and drum most hideously. He then relates all that he has seen and heard, though panting for breath, like one quite jaded with his excursions. Afterwards he

strikes up a song, and going round the assembled circle, gives each his touch or benediction. The lamps are now lighted, and the Angekok is seen with a pale bewildered look, and in a state of such exhaustion that he can scarcely articulate.

It is not every probationer that succeeds in this art, and one who has drummed ten times in vain for his Torngak must resign his office. But the successful conjurer may, after a certain period, assume the dignity of *Angekok Poglik*. The candidate must lie in a dark house unbound, and after he has intimated his wishes by singing and drumming, if he is thought worthy by Torngarsuk, though few attain to this high honour, a white bear comes and drags him away by the toe into the sea. There he is devoured by this bear and a walrus, who, however, soon vomit him up again into his own dark chamber, and his spirit re-ascends from the earth, to animate the body. And now the mighty sorcerer is complete.

VIII. The coarse imposture of the whole process is palpably manifest, and has, in many instances, been made apparent to the Greenlanders themselves. But though the majority of their angekoks are doubtlessly mere jugglers, the class includes a few persons of real talent and penetration, and perhaps a greater number of genuine phantasts, whose understanding has been subverted by the influence of some impression strongly working on their fervid imagination.

Those sensible individuals who are best entitled to the name of *wise-men*, or Angekoks, for the import of the word is Great and Wise*, have, either from the instructions of their fathers, or from their own observation and long experience, acquired a useful knowledge of nature, which enables them to give a pretty confident opinion, to such as consult them on the state of the weather, and the success of their fishery. They discover equal sagacity in their treatment of the sick, whose

* *Angekau*, or, as the Southlanders pronounce it, *Angekakk*, means he is very great; and *Angejokait* is the word for ancestors.

spirits they keep up by charms and amulets, while, as long as they have any hopes of recovery, they prescribe a judicious regimen. Their unblamable deportment and superior intelligence, have made them the oracles of their countrymen, and they may be deservedly considered as the physicians, philosophers, and moralists of Greenland.

Persons of this class, when put to the question by Europeans, avow the falsehood of their apparitions, converse with spirits, and all the mummery connected with it; but still they appeal to their ancient traditions for the truth of revelations made to their forefathers, and miraculous cures which they performed by a certain sympathy. With regard to their own practice, they readily admit that their intercourse with the spiritual world, is merely a pretence to deceive the simple, and that their frightful gesticulations are necessary to sustain their credit, and give weight to their prescriptions.

Still there are many, even of those that have renounced these impostures along with heathenism, who aver that they have frequently been thrown into supernatural trances, and that in this state a succession of images appeared before them, which they took for revelations, but that afterwards, the whole scene appeared like a dream. A strong imagination may easily produce a world of fanciful conceits. Many of the Greenlanders are strongly inclined to dream, and things which had never entered into their waking thoughts, are presented to them in sleep, with all the liveliness of reality. And who will say that the prince of darkness may not countenance these lying arts, to confer honour on his useful instruments, and assist them to delude a poor and ignorant race? So much is certain that Angekoks who have laid aside their profession in the waters of baptism, while they acknowledge that the main part is a tissue of fraud and imposture, are steadfast in asserting, that there is an interference of some supernatural agency; something which they now indeed abhor, but are unable to describe.

The bulk of these diviners are, however, barefaced im-

postors, who pretend to have the power of bringing on, and driving away diseases, enchanting arrows, exorcising spirits, bestowing blessings, and of performing a whole catalogue of similar feats. The dread excited by these, imagined powers of good and evil, procures them a formidable name, and an ample reward for their services. These sorcerers mutter a charm over a sick man, and blow upon him that he may recover; or they fetch him a healthy soul, and breathe it into him; or they confine themselves to a simple prediction of life or death. For this purpose they tie a bandage round the head, by which they raise it up and let it fall: if it feels light, the patient will recover; if it is heavy, he will die. In the same manner they inquire the fate of a hunter who has stayed unusually long at sea: they bind the head of the nearest relation, and lift it up by a stick; a tub of water is placed beneath, and there they behold the absentee either overturned in his kajak, or rowing on in his erect posture. They will also cite the soul of a man, whom they wish to injure, to appear before them in the dark, and wound it with a spear, upon which their enemy must consume away by a slow disease. The company present will pretend to recognise the man by his voice.

Such malevolent wizards as pride themselves most upon their power of doing mischief, are called *Illiseetsok*. Many old hags, who have no other chance of supporting themselves, likewise carry on this profession. They are particularly skilful in sucking out of a swelled leg, lumps of hair, and scraps of leather, with which they have previously filled their mouths.

These bunglers have nearly brought the whole craft into disgrace, particularly since the missionaries have exposed so many glaring instances of fraud; so that a Greenlander has sometimes been courageous enough to seize the Angekok during his journey to hell, and throw him out of the house. Yet since they have observed many cases in which the predictions of the genuine Angekoks have been verified; and that many patients, whose lives have been charmed, have recover-

ed; as in case of a miscarriage, the blame is easily thrown upon the ambiguity of the oracle, or the mischievous interposition of one of the Illiseetsok; and as these last, when brought out to suffer death, staunchly refuse to betray their craft by a confession of deceit, dying like martyrs for their occult art; the Angekoks have still so much influence over the greater part of their countrymen, that those who ridicule their juggling tricks, implicitly follow their whimsical prescriptions, thinking that if they are useless, they will at least do no harm.

IX. The prescriptions of the Angekoks relate either to certain amulets, or to a course of diet, which includes the healthy as well as the sick. Women in child-bed have particularly much to observe. They dare not eat in the open air: no one else must drink at their water-tub, or light a match at their lamp, nor must they themselves boil any thing over it for a long time. Their meals must consist of what their own husbands have caught: the fish must be eaten before the meat, and the bones are not to be thrown out of the house. The husband must abstain for several weeks from all pursuits except the necessary fishing. The ostensible reason of these restrictions is to prevent the death of the child, though it is plain that they were originally invented for the convenience and preservation of the feeble mother.

Abstinence from food and labour of certain kinds is likewise enjoined to young maidens, who have the misfortune to be soiled by the ordure of the sun or moon, or more properly speaking of a bird flying over-head. Those who neglect these precautions are liable to some mischance, perhaps, even the loss of their honour or lives: besides, the Torngak of the air might be provoked on her account to raise stormy weather. The men never sell a seal on the day it is caught, and they always keep back the head or some other part, if it be but a few bristles from the beard, lest they should forfeit their luck.

Their amulets or pendants are so various that one conjurer laughs at another's. They consist of an old

piece of wood, a stone, a bone, or the beak and claws of a bird, hung round the neck, or a thong of leather tied round the forehead, breast, or arms.

These potent charms are preservatives against spectres, diseases, and death; they confer prosperity, and they especially save children from losing their souls in thunder storms, or panic terrors. A rag or shoe of an European hung about their children, instils into them some portion of European skill and ability. They are particularly eager to get an European to blow upon them. When they set out on the whale-fishery, they must not only be neatly dressed, but the lamps in their tents must be extinguished, that the shy whale may not be frighted. The boat's prow must be adorned with a fox's head, and the harpoon with an eagle's beak. In the rein-deer chase, they throw away a piece of flesh for the ravens. The heads of their seals must not be fractured nor thrown into the sea, but piled up before the door of the house, lest the souls of the seals should be incensed and scare away the rest, or perhaps that their own vanity may be gratified by these trophies of their valour. The kajak is frequently adorned with a small model of a kajak, containing a miniature image of a man bearing a sword; sometimes with a dead sparrow or snipe, a piece of wood, a stone, feathers, or hair, to ward off danger. But it is observed, that those who chiefly make use of these charms, are in general the most unfortunate, since they are either unskilful persons, and therefore timid, or so secure in their superstition that they needlessly run into danger. A virtue is supposed to lurk in fox's teeth and eagle's claws, which is powerful enough to extract all noxious humours out of the limbs.

The Greenlanders likewise use pendants for mere ornament; and some tie strings round the arms or legs of their children, to ascertain their growth.

CHAPTER VI.

Sciences of the Greenlanders.—I. *Sketch of the Language.*—II. *History. Genealogy, Arithmetic, Writing, Chronology, and Astronomy.*—III. *Diseases and Mode of Treatment.*—IV. *Funeral Ceremonies. Lamentation of a Father over his Son.*

I. The Greenlandic language, with the exception of a few words, probably derived from the ancient Norwegians, bears no similarity in its etymology, inflections, or significations, to any of the Northern, Tartarian, or Indian languages, as far as they are known to us. The language of the Esquimaux in Labrador is only a dialect of the Greenlandic.

The pronunciation in which the north and south Greenlanders sensibly differ, is extremely difficult to an European, on account of the guttural *r*, which is sounded very deep in the throat, and frequently pronounced like *ch*, or *k*. The numerous terminations in *k* and *t*, are likewise very grating to the ear. The number of polysyllabic and compound words, (for there are very few monosyllables,) gives the language such an intricate appearance, that half the difficulty of the acquisition consists in learning to read it.

Yet, in general, this language is not so rude and imperfect as that of so unpolished a people might be expected to be. We are strongly led to conjecture that it has been reduced at some remote period to its artful and regular form, by a set of men much farther advanced in civilization, than those who speak it at present. For, in the first place, it is so copious in words expressive of common objects and conceptions, that like the Mongolian and Manchew languages, it distinguishes the slightest shades of difference in a thing by appropriate terms.* Much therefore may be said in a few

* *Histoire generale des Voyages, p.* 333. Animals of the same species receive peculiar names according to varieties of age, sex, or size. Actions are discriminated with similar precision. The idea of fishing, for instance, is expressed by a different verb for every kind of fish.

words without obscurity; on the other hand, they have no words whatever for subjects beyond their knowledge, such as religion and morality, arts and sciences, and abstract ideas of any kind. Secondly, the words are very variously inflected, though according to certain rules, and provided with far more numerous affixes and suffixes than the Hebrew, so that the language is not only elegant, but unequivocal and energetic. And thirdly, many words are connected together, so that like the North American Indians, they can express themselves at once with strength and brevity. This circumstance, however, occasions foreigners so much trouble in learning the language, that it requires several years' study to be able thoroughly to understand the natives, and to converse with fluency. Nor does any one attain such a proficiency in it, that he can express himself with the ease, elegance, and significance of the natives.

The following observations on the several parts of speech, will illustrate these remarks.

Several of our letters are wanting in their alphabet, and they never begin a word with B, D, F, G, L, R or Z. Consonants are seldom joined together, and never in the beginning of a syllable. In the pronunciation of foreign names, therefore, they omit the defective letters, and separate the crowded consonants; Jephtha, for instance, they pronounce Eppetah, Petrus Peterusse. On the contrary, their deep guttural sound of the *r*, and some of their diphthongs, baffle the efforts of European organs to imitate them. The letters, though never transposed, are frequently changed for others for the sake of euphony, especially by females, who have a peculiar fondness for the termination *ng*. The accent generally falls on the last syllable; if it is not properly attended to, a different, and perhaps quite a contrary meaning to the one intended, may be conveyed. It must also be remarked that the Greenlanders, particularly the women, accompany some words not only with a peculiar accent, but with certain winks and gestures, and unless these are understood much of the sense is lost. Thus to express complete approbation, they draw in the air with a peculiar noise,

through their throats. And if they are in bad humour, it is shown more plainly by their gestures, than their words.

There are but few adjectives, which are mostly participial, and are constantly placed after the noun. The noun always begins the sentence, and as well as the verb, has a singular, plural, and dual form; but it is without gender, and needs no article. The dual and plural are formed regularly from the singular, according to its termination. For instance,

	Sing.	*Dual.*	*Plur.*	
a.	Nuna,	nunæk,	nunæt;	land.
ak.	Norrak,	norrek,	norret;	calf.
gak.	Nallegak,	nallekek,	nalleket;	lord.
rak.	Ujarak,	ujarkek,	ujarket;	stone.
ak pure.	Ajaupiak,	ajaupirsek,	ajaupirset;	staff.
e.	Allerse,	allersik,	allersit;	stocking.

ek. nearly the same, but with many exceptions.

bik.	Iglerbik,	iglerbek,	iglerbeet;	chest.
o and *u.*	Iglo,	igluk,	iglut;	house.
ut.	Angut,	angutik,	angutit;	man or male person.
uk.	Innuk,	innuk,	innuit;	man or human creature.
ok.	Okiok,	okiuk,	okiut;	winter, or year.
et.	Aket,	aketik,	aketit;	glove.
eit.	Auleit,	auleisik,	auleisit;	gun.

Collective nouns have only the plural, and end in *it*; as, *Umiarsoit*, the ship; *Igloperksuit*, the city; i. e. a collection of houses.

The nouns may be varied to a great extent; as diminutives; e. g. nuna*ngoak*, a small land; augmentatives, e. g. nuna*rsoak*, a great land; also in a good or bad sense, e. g. iglu*piluk*, a bad house, iglo*pilurksoak*, a great bad house.

Compound epithets and verbal nouns are frequent, and parts of verbs are sometimes added to increase their significancy.

The declension is easy. The genitive only takes a *b.* (or an *m* before a vowel,) to the last syllable, either by addition or crasis. The rest of the cases have a prepositional affix.

The personal pronouns from which the affixes are formed are,

Uanga, I,	Iblit, thou,	Oma, he,
Uagut, we,	Illivse, ye,	Okkoa, they.

The Dual is distinguished by k.

There are likewise Interrogative pronouns, and a large number of Demonstrative, both with and without suffixes.

Parts of the Pronouns are suffixed to the noun, with some variation for the different numbers. The following Paradigm contains the singular only.

Nuna	land
Nunag*a*	my land
Nun*et*	thy land
Nun*à*	the land of him (*terra ejus*)
Nunan*e*	his land (*terra sua*)
Nunar*put*	our land
Nunar*puk*	the land of us two
Nunar*se*	your land
Nunar*sik*	the land of you two
Nunæ*t*	the land of them (*illorum*)
Nunæ*k*	the land of those two
Nunar*tik*	your, and both your land (*sua*).

The difference of termination in nouns, occasions some diversity in the manner of suffixing these possessive pronouns.

The preceding example relates only to nouns, followed by an Intransitive verb without suffix. If the signification is transitive, in which case the verb receives a pronoun suffix, the noun with its pronoun is inflected differently, as nallek*ab*, the master; nallek*ama*, my master; nallek*auit*, thy master, &c. (has beaten thee.)

There are only five prepositions: *Mik*, signifying with, or through; *mit* from, *mut* to, *me* in or upon; *Kut* and *agut*, through and round. In the dual and plural numbers, and also when affixed to pronouns, *m* is changed into *n*. They are placed, contrary to the construction of other languages, after the noun, which undergoes an additional change of inflection on their account. Thus

Nuna*mit*, from land; nuna*unit*, from my land; nuna*ngnit*, from thy land, &c.

A different class of suffixes are again used for the demonstrative pronouns, as, taursoma, this; taursom*inga*, of this.

The verbs have been divided according to their terminations, into five conjugations.

1. in *kpok*, as Ermikpok, he washes himself.
2. *rpok*, as Mattarpok, he undresses.
3. *pok* pure, as Egipok, he throws away.
4. *ok*, and *vok*, as Pijok, he receives, and Assavok, he loves.
5. *au*, as Irsigau, he beholds.

The negative form of the verb, which runs through all the moods and tenses, is marked by the termination *ngilak*, thus Ermingilak, he does not wash himself.

The third person singular is the root, from which, by the addition of the pronouns, all the other persons are formed; as *Ermikpok*, he washes himself; *Ermikpotit*, thou washest thyself.

The tenses are confined to three. The Present is used likewise for time already elapsed; and the Preterite includes a pluperfect sense. It is distinguished from the present by *t* or *s*, as *Ermiksok*, he has washed himself. The Future includes two forms; as Ermisavok, and Ermigomarpok, he will wash; the first expressing simple futurity, the last denoting decision.

There are, however, six moods: the

Indicative, as Ermikpok, he washes.

Interrogative, as Ermikpa, does he wash?

The Imperative, which is of two kinds; the one gently reminding, as Ermina, pray wash yourself; the other commanding, as Ermigit, wash yourself.

The Optative likewise includes two modes; the one demanding, the other requesting or begging, as,

Ermigle, erminaunga, let me wash. If the thing is required immediately, an *i* is inserted; as Ermigile.

The Subjunctive, which has no optative signification, but merely supplies the omission of a conjunction, has likewise a double modification;

1. Causal; since, because, &c. Ermikame, because he has washed.
2. Conditional; if, provided, &c. Ermikune, if he washes.

The Greenlanders can distinguish the third person of the subjunctive mood so precisely, that no confusion arises when several persons are spoken of. Grammarians generally enumerate two agents, but a distinction is sometimes wanted for three,—Thus, 1. He was angry when he washed himself. 2. He (A) was angry when he (B) washed himself. 3. He (A) was angry when he (B) washed him, (C).

All these different agents the Greenlanders express by the alteration of a letter. But it is extremely difficult for a foreigner to seize these niceties, and to make himself intelligible to a native.

The Infinitive is threefold, denoting,

1. To wash one's self, as Ermiklune, for him to wash.
2. While he is washing, Ermiksillune.
3. Before he washes him, thee, or me, &c. as Ermiksinnane.

This last indeed seems to be only a negative form. It must be accompanied by another verb, generally by *pyok*, to obtain, which is even used in a greater latitude than the English *get* and *do*. The infinitive in this case expresses what would be rendered in other languages by the subjunctive.

It requires much study and long practice to become thoroughly master of these distinctions. And the conjugations, though regular, are not easily fixed in the memory. For the verb must first be conjugated through all the moods and tenses, both of the affirmative and negative form, with the nominative suffixes, and with all the alterations requisite to avoid ambiguity, as:

Ermik *pok*	he washes.
po*tit*,	thou wishest.
po*nga*,	I wash.
p*ut*,	they wash.
p*uk*,	they two wash.
po*se*,	you wash.
po*tik*,	you two wash.
po*gut*,	we wash.
po*guk*,	we two wash.

Afterwards, the whole must be repeated, with the addition of both the subjective and objective pronoun suffixes, as:

Ermik*pa*	he washes him.
pet	thou washest him.
para	I wash him.
pæt	they wash him.
pæk	they two wash him.
parse	you wash him.
partik	you two wash him.
parput	we wash him.
parpuk	we two wash him.

In this manner, it proceeds with the objective pronoun, not only through the three persons of both singular and plural, but also through those of the dual, as, he washes both of them, both of you, both of us; so that the whole number of inflections in each verb, to be embraced by the memory, amounts to a hundred and eighty.

The participle, which supplies the defect of adjectives, is the same in the present and perfect tenses, as the preterite of the indicative; as, *Ermiksok*, one who washes. In the future it is *Ermissirsok*, about to wash.

The language has no deponent verbs, nor any regular passive voice; this is formed by a few alterations from the active; but it has a copious stock of verbs compounded, either with particles which have no separate meaning of their own, with certain auxiliary verbs, particularly *pyok*, or lastly with other verbs. There are more than a hundred methods of compounding verbs with four, five, or six members. The last member is conjugated at length with the pronoun suffixes, the others are abbreviated, either in the beginning or end, e. g.

Aglekpok, he writes.
Agleg-iartor-pok, he goes away to write.
Agleg-iartor-asuar-pok, he goes hastily away to write.
Agleg-kig-iartor-asuar-pok, he hastily goes away to write afresh.
Agleg-kig-iartor-asuar-niar-pok, he goes away hastily and applies himself to write afresh.

These compounds are conjugated with every possible variety, and are much in use amongst the Greenlanders, since they contribute to neatness and conciseness of expression. The following ten-membered vocable, however, seems rather to have been composed as a specimen of what might be done in this way, than to have been really uttered by any Greenlander. "He says, that you likewise will hastily go away, and buy a pretty knife."

Knife	pretty	buy	go-away	hasten
Sauig ——	*ik* ——	*sini* ——	*ariartok* ——	*asuar*

will	likewise	you	also	he-says
omar ——	*y* ——	*otit* ——	*tog* ——	*og*

They have, like other nations, various sorts of adverbs. But their numerals are scanty, even to a proverb. After counting ten on their fingers, they take in the toes to their assistance; and thus with difficulty make up twenty. *Attausek* is one; *arlæk*, two; *pingajuak*, three; *sissamat*, four; *tillimat*, five. They now take the fingers of the other hand, and call six, *arbennek*: the remaining fingers have the same names as the corresponding ones of the other hand. The other ten are counted in the same manner on the toes, calling eleven, *arkanget*, and sixteen, *arbasanget*. They also express the number of twenty by the collective term, *a man*, referring to all his toes and fingers, and begin again with their fingers for numbers above twenty. In the same manner, for a hundred they say, *five men*. In general however when a number exceeds twenty they say, "It is innumerable." Some of these numerals vary when joined to substantives, as, *Innuit pingasut*, three men.

The Conjunctions, which are numerous, are postfixed to the word like the Latin *que*. There is likewise no scarcity of Interjections.

The Syntax is simple and natural, the principal word occupying the first place, and the rest following according to their importance. The chief difficulty arises from the infinitive and subjunctive moods, which depart so widely in their meaning from those of other languages.

The form of answering a negative question, likewise differs from our idiom. Thus the reply to *Piomangilatit?* will you not have it? must be *Nagga*, No; if the affirmative is intended: on the contrary, if the offer is declined, the answer is, *Ap, piomangilanga:* Yes, I will not have it.

Their style, or manner of speaking, is free and simple, totally devoid of that inclination to hyperbole and bombast, which prevails amongst the American Indians. They are, however, fond of similies, particularly the Christian part of them, and they most readily comprehend a truth when it is clothed in this figurative dress. They seldom make use of any circumlocutions in conversation, though they frequently repeat a thing for the sake of emphasis; and they speak so laconically that, though they are perfectly intelligible to each other, foreigners after an intercourse of many years can scarcely understand them.

Several figurative and proverbial expressions are in vogue. A metaphorical style, frequently quite contrary to the common idiom, is used by the angekoks to give them an appearance of superior learning and penetration. Thus they call a stone, the great hardness; water, the softness; the womb, a bag.

Their poetry has neither rhyme nor measure. It consists merely of short periods, sung with a certain rythmus and cadence, with the intervening chorus of Amna ajah, ajah, hey!

The language is not easily translatable, the brevity and force of a single sentence requiring to be rendered in many words of another language. Still greater periphrasis is requisite for translating from other tongues into this, especially where foreign objects and ideas occur. *

II. Few traces of science can be expected amongst so rude a people. They have not any oral traditions of their ancient history couched in heroic songs, such as are found amongst many barbarous nations, who, like them,

* For a specimen of the language, see Note XIV.

are ignorant of the use of writing. All they know of their ancestors amounts to this, that they were brave hunters, and extirpated the Norwegians. They have, however, their satirical songs, which have already been described.

They are tolerable genealogists, and can trace their descent up to the tenth degree, with all its branches. A Greenland pedigree boasts a richness of terms unknown to any European language. Every varying shade of relationship, which we labour to express by two or three awkward compounds, has its appropriate appellation. This genealogical knowledge frequently proves of great utility to an impoverished family, for no one is ashamed of his poor relations; and he who can challenge any connection, though a very distant one, with a man in good circumstances, is in no danger of want. The Greenlanders, indeed, suppose that activity and skill, which are considered to be the principal virtues, and the sole nobility, descend in hereditary succession from father to son. Nor is this notion altogether groundless; for it may be pretty confidently expected that the son of an expert seal-catcher, will likewise distinguish himself in his art, even though he lose the advantage of his father's instructions in infancy.

They have no idea of the art of writing. At first indeed they were afraid to take charge of a letter, or to touch a book, considering it as witchcraft, to be able to read another's thoughts by means of a few black strokes. They likewise entertained the notion, that when the Priest read to them the message of God, he heard a voice proceeding from the book. They now consider it as an honour to travel post with letters, and to carry the voice of an European through the country; besides that their trouble is amply remunerated.

Several of them have likewise advanced so far as to send their own orders and promissory notes to the factors, drawing the article they are in want of on a piece of prepared skin with charcoal, and scoring the number of days to the time of payment with so many strokes. They never fail in their engagements; and they only

wonder why the all-knowing Europeans cannot understand these paintings as well as their own scratches.

Their chronology does not extend far. They reckon by winters and nights. They can compute the age of a person up to twenty winters, but that is the limit of their numeration. They have of late, however, established certain epochs, such as the arrival of the first missionary, and other Europeans of note that succeeded him, or the founding of a new colony. Thus they say, I was born about the arrival or departure of such a missionary, in the season of gathering eggs, or catching seals; for in this manner they divide the year. They begin the new year with the feast of the sun on the winter solstice, which they fix with tolerable accuracy by the shadow of the sun on the rocks: from hence they reckon three full moons to the spring, not being skilful enough to fix the equinoxes. In the fourth moon, i. e. in April, they know that the smaller birds revisit them, and the ravens lay their eggs. In the fifth, the Angmarset shoal into their bays, and the seals with their young make their appearance. In the sixth, the Eider-fowl brood. But since the moon is no longer visible in the bright nights of summer, their computations would be liable to error, could they not regulate their calendar by the growth of the eider-duck, and the size and shape of the seals, or by the beams of the sun on their rocks and mountains. By these calculations, they can exactly tell when the seals, fishes, and fowls will return to their customary haunts, and when it is the proper time for repairing their winter-houses.

They divide the day according to the ebb and flow of the tide, though they must perpetually vary their reckoning according to the changes of the moon. They distinguish the time of the night by the rising and setting of certain stars.

They imagine that the globe of the earth rests upon pillars, which are now mouldering away by age, so that they frequently crack. They would have fallen in long ago, if they were not kept in continual repair by the angekoks, who, as a proof of their subterrene labours some-

times bring away pieces of rotten wood. The heaven is supposed to be supported by the lofty peak of a mountain in the north, and revolves upon it, as a centre.

The celestial bodies according to their astronomy, are ancient Greenlanders, or animals, who by some wonderful fatality have mounted up thither, and shine with a pale or fiery lustre according to the quality of their food. The planets in their conjunctions are women visiting or wrangling with each other; the shooting stars they conceive to be human souls travelling on a visit from heaven to hell. They give particular names to the constellations. They call Ursa Major, *Tukto*, the reindeer; the seven stars are so many dogs, *Kellukturset*, that hunt a bear the whole night through; they call Gemini, *Killab Kuttuk*, the breast bone of heaven, and Orion's belt is termed, *Sirktuk*, the Bewildered ones, that constellation being composed of certain seal-hunters, who lost themselves on their way home, and were translated to the stars.

But what does the reader suppose to be the origin of the sun and moon? They are nothing else than two mortals, brother and sister. They were playing with others at children's games in the dark, when *Malina* being teased in a shameful manner by her brother *Anninga*, smeared her hands with the soot of the lamp, and rubbed them over the face and hands of her persecutor, that she might recognize him by daylight. Hence arise the spots in the moon. Malina wished to save herself by flight, but her brother followed at her heels. At length she flew upwards, and became the sun. Anninga followed her and became the moon; but being unable to mount so high, he runs continually round the sun, in hopes of sometime surprising her. When he is tired and hungry in his last quarter, he leaves his house on a sledge harnessed to four huge dogs, to hunt seals, and continues abroad for several days. He now fattens so prodigiously on the spoils of the chace, that he soon grows

into the full moon. He rejoices on the death of women, and the sun has her revenge on the death of men: all males therefore keep within doors during an eclipse of the sun, and females during that of the moon. The moon frequently bears the blame if a virgin loses her honour, on which account they are afraid of gazing at him. During an eclipse, he is supposed to rove about their houses, pilfering their skins and eatables, and killing people who have not observed the rules of abstinence. At such times they hide all their goods, while the men carry kettles and empty chests to the top of their houses, and raise such a hideous rattle, that the moon is glad to retreat by the shortest way home. When the sun undergoes an eclipse, the women pinch the ears of the dogs. If they cry out, it is a sign that nature has not reached her final catastrophe; for they reason, that as dogs existed before men, they must have a quicker perception of future events. If they should not cry, a case, however, which is not very likely to happen, the end of all things would be at hand.

They imagine the northern lights, as has been already mentioned, to be the souls of the dead, dancing and playing at ball in the sky. If it thunders, the reason is, that two women are stretching out a dried seal skin, and the flapping produces that reverberation. Rain is produced by the overflowings of the aerial reservoir; if its banks were to break down the sky would fall.

But enough of these flimsy fables, which are harboured by none but weak heads, even in Greenland. Indeed it should seem that the Greenlanders, who have art enough to assume the appearance of stupidity on occasion, have repaid the marvellous stories of the Europeans in their own coin, to see how far their credulity would carry them, or perhaps to make themselves agreeable.

I could perceive amongst them no traces of any kind of divination, either from the stars, or the entrails of animals, or the flight and notes of birds. They, however, pay strict attention to the appearances of the atmosphere, and can form a correct opinion regarding the changes of the weather.

III. The Greenlanders are much attached to their life of indigence and hardships, and are dismally afraid of death. So true it is, that men without the knowledge of a Redeemer, must, *through fear of death, be all their lifetime subject to bondage.* When seized with sickness, they place little confidence in the charms of their sorcerers, but have recourse to more rational expedients; though their pharmacy is extremely incomplete, and few persons, besides, have the courage to attend the sick, for dread of the infection. Their diseases and the mode of treatment shall be briefly noticed.

In May and June, the sharp winds and the dazzling reflection of the sun's rays from the melting ice and snow, make their eyes inflamed and watery, sometimes to such a degree that they cannot open them. Some preserve their eyes at this season by a shade neatly made of wood inlaid with bone, which they bind round the forehead. These shades have sometimes narrow sight-holes, which admit sufficient rays for vision, without injury from the snow-glance. If the soreness becomes settled in the eye, they make an incision above it, for the sharp serous humour to discharge itself. A spot or filmy membrane is often formed over the pupil, which the good dame couches with a crooked needle, and cuts it off with her large knife so skilfully that the cure seldom fails. This malady in the eyes has become much less prevalent, since the use of snuff has been introduced.

They are frequently troubled with bleeding at the nose, since they are of a very full habit. To procure a stoppage, they get some friend to suck the nape of the neck, or they bind tightly down the ring finger of both hands, or hold a piece of ice in their mouths, and snuff up the sea water into their nostrils. They are subject to head-ache, tooth-ache, dizziness, fainting, and apoplexy. There are also instances of the falling-sickness, dropsy, lunacy and madness. But these, with the cancer in the mouth, are not common, and if they occur are considered as incurable.

For scorbutic disorders, since they cannot overcome

their aversion to the scurvy-grass, they eat besides a few berries, the leaf of a kind of sea-weed with the brine upon it.

They are infested with two kinds of eruptions. The one is a sort of rash with small pimples, which cover the whole body, except the hands, but soon disappear, and are not contagious.

The other is the leprosy, which spreads in white boils and scurf over the entire skin. This disorder is infectious, and commonly lasts till death. Scraping the scales with hawk's feathers is said to afford some relief. Separate habitations are allotted to people afflicted with this disease.* The measles are quite unknown, and the only attack of the small-pox occurred in the year 1733, when it was brought by a boy from Copenhagen, and proved fatal to three thousand persons.

Their boils sometimes grow to the size of a plate, frequently producing a contraction of the whole body. In this case they make an incision cross-ways, and tie over them a hollow covering of straw, or a thin piece of wood, that the raw flesh may not be irritated by the clothes; after this dressing they resume their ordinary work.

They staunch an effusion of blood by thrusting the wounded limb into the urine vessel. They then lay some fat, or moss burnt in train, over the wound, and wrap it with a leather bandage. If the wound is large, they first sew it up.

A fractured arm or leg is pulled into joint, and bound with stiff sole leather. Under this treatment it heals in an astonishingly short time, even though the splinters of the bone stuck out before.

Thus we see that their remedies for external injuries are simple and expeditious. Against inward sicknesses they are totally unprovided, and leave every thing to nature. Amongst this class of maladies the most pre-

* This disease prevails also on the coasts of Norway, and in the Faroe isles, and is supposed to originate from the extensive use of fish-diet. *Pontop. Nat. Hist. of Norway.* Part. ii. chap. 9.

valent are consumption, spitting of blood, for which they eat as a remedy a black moss or lichen, diarrhœa and dysentery, which is induced by their fish diet in spring, or by their eating large quantities of unripe berries in autumn. Numbers are carried off by a pectoral complaint, accompanied with an excess of mucus which at last produces suffocation.

Agues and fevers are quite unknown. Their most common complaint is a stitch in the side or breast, which is frequently occasioned by a gathering of phlegm. The first symptom is a shuddering, followed by a slight degree of heat, which settles in the breast with shooting pains. It is often infectious, and rapid in its progress. Their remedy is to beat the part affected with a heated piece of asbestus. This remedy is likewise applied to tumours. It is now, however, more usual in these cases to open a vein; which is also done as a preventative, and is frequently of great service.

The causes of this and other sicknesses must be sought for in their irregular manner of living. Their hands and face are sometimes so benumbed with cold in winter that they lose all sensation. At other times they run out bathed in sweat from their hot houses into the open air. When their provisions are exhausted they hunger for two or three days, but on recruiting their stores they make abundant amends for this fast. To slake their thirst they are not contented with their naturally cold water, but give it a greater chill with ice or snow; and since they drink only when they need it, they pour down their potations in so much the larger quantities. These great and sudden changes cannot but obstruct the regular course of nature. Agreeably to these remarks, it is known that their principal disorders, particularly the stitch in the side, generally break out at the end of a severe winter, when provisions have been scanty; and as they will not allow the internal heat to work itself out by the pores, but endeavour to check it by drinking iced water, these sicknesses speedily carry them off.

IV. When a Greenlander is on the point of death,

his relations dress him in his best clothes and boots, and double his legs up to the hips, that a smaller grave may be requisite. As soon as he is dead, they throw out every thing which has belonged to him; otherwise they would be polluted, and their lives rendered unfortunate. The house is cleared of all its moveables till evening, when the smell of the corpse has passed away. After mourning the dead in silence for an hour, they begin to make preparations for the interment. The corpse is carried out, not through the usual entrance, but through the window. If they are living in tents at the time, an opening is made for it by loosening one of the skins in the back part. A woman follows the corpse waving a lighted chip, and crying: "Here thou hast nothing more to hope for." They prefer an elevated and remote situation for the tomb, which they build of stone, and line with moss and skins. The nearest of kin brings the dead, swathed and sewed up in his best pelts, bearing him upon his back, or sometimes dragging him along the ground. He then lays him in the grave, covering him with a skin or sods, and places over these large heavy stones, as a protection against foxes and birds of prey. The kajak and weapons of the departed, are deposited near the grave, as are also the knives and sewing implements of women, that the survivors may contract no defilement from them, nor by the constant beholding of them, be led to indulge too deep a sorrow. An excess of grief is thought to be injurious to the departed soul; and many likewise entertain the notion, that the same weapons will be necessary for the support of life in the other world, which were used in this. People of this fanciful cast, lay a dog's head on the grave of a child, that the soul of the dog, which always knows the road home, may guide the helpless infant to the land of souls. These funeral offerings are now falling into disuse, since the savages see that the baptized can dare remove such deposits from the grave, and appropriate them to their own use without incurring the revenge of any spectre. Still, however, they will not use the utensils of the dead themselves,

but sell them to others, who feel no scruples at striking a good bargain.

One who has touched a corpse, the bearer in particular, is unclean for several days, must throw away the clothes he wore at the time, and abstain from labour and certain kinds of food. This is also done, though in a less degree, by the other relatives and domestics, lest some calamity should overtake them, and the journey of the departed soul be rendered difficult.

A sucking babe which has lost its mother, and has no one else to nurse it, is soon after buried alive by the desperate father, when he can no longer endure the sight of its misery. The heart rending anguish of this task, must be left for the imagination to conceive. A stranger without friends and relatives is generally suffered to lie unburied.

After the interment, the mourners repair to the house of the deceased, and seat themselves in silence, leaning forward with their elbows upon their knees, and the head between the hands; and the women lying with their faces downwards upon the bench, they all give silent vent to their tears and sobs. The father or son, or the nearest male relative, at length interrupts the stillness by reciting in a loud plaintive voice the funeral elegy, commemorating all the excellent qualities of the departed. This lament is accompanied at each break by a loud wailing from all the attendants. The following extract of the funeral dirge of a father over his son, may serve as a specimen of natural eloquence.*

"Wo is me, that I see thy empty seat! Thy mother has toiled in vain to dry thy garments. Behold! my joy is gone into darkness; it has crept into the cavern of the mountain. Once I went out at even-tide, and was glad of heart; with straining eyes I watched, waiting for thy return. Thou camest! thou camest, manfully rowing on, emulously vying in the race with young and old. Never didst thou return empty from the sea; thy kajak was alwa,.

* *Dalager's Relation.*

deep laden with seals and sea-fowl. Thy mother kindled a fire, and with snow water she seethed them. Thy mother spread the feast of thy winning before the guests, and I took my portion among them. Thou descriedst the red streamer of the shallop from afar: there comes *Lars!* was thy cry. Thou didst run with speed to the shore, and thy arm fastened the boat to her moorings. Then were thy seals produced, and thy mother cut out the blubber; in exchange for this, the merchant brought linen and iron barbs. But thus it shall be no more. My bowels yearn when I think on thee. Ah! my friends, could I weep as ye weep, it would be some solace to my woe. What have I left to wish for? Death alone appears desirable to me. But how shall my wife and children be sustained? I will yet live for a season, but my joy shall henceforth be placed in the rejection of all that once was dear to me."

After such a plaint, the women renew their tears and lamentations. Their howl strikes the ear with the same effect as a fifth upon an instrument, struck tremulously downwards through all the semitones. At intervals there is a pause, during which the chief female mourner throws in a few words while the men sob silently. All the eatables which the dead has left behind him are now strewed on the ground to feast the condoling visitors. They repeat their visits for a week or a fortnight as long as any thing is left. The widow puts on old tattered greasy clothes, never washes, cuts off her locks, or suffers them to hang in dishevelled trails, and wears a peculiar mourning hood whenever she goes into the open air. The men omit these outward marks of grief, though they sometimes gash their bodies, to indicate a deeply cutting pain. The widow receives any occasional guest with the greeting, "Him whom you seek, you will not find, you come too late;" and then the howling bursts out anew. They keep up their laments for half an hour every day for several weeks, or even a full year, according to the age or worth of the deceased. They also visit the grave, and lay themselves down upon it, and there pour out their cries, assisted by the voices

of the surrounding females. If it is the father of a family that is dead, the neighbours, who continue their visits of condolence as long as the widow keeps within doors, contrive each time to purloin some domestic article; or if the relict is not supported by a powerful kindred, they will carry on their depredations openly, till at length she is stripped almost to the last shred, and falls a victim, along with her children, to frost or hunger.

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BOOK IV.—CHAP. I.

History of Old Greenland. — I. *Iceland discovered by the Normans or Norwegians.* — II. *Discovery and colonization of Greenland by fugitives from Iceland; the precise date of this event disputed.* — III. *Ancient geography of the country.* — IV. *Former state of the east coast: its climate and produce.* — V. *Christianity introduced into Greenland; succession of its Bishops.* — VI. *North America discovered by the Icelanders and Greenlanders, who send colonies thither.* — VII. *First appearance of the present race of Savages in Greenland; their origin; one race with the Esquimaux of Labrador.* — VIII. *Extermination of the old Norwegians. Few remaining vestiges of them.* — IX. *Recent accounts of the state of the east side and its inhabitants.* — X. *Revival of the spirit of adventure in Europe:* — *Greenland again becomes an object of research. Voyages of Frobisher and Davis.* — XI. *Expeditions and discoveries of the Danes.*

I. FEW materials can be collected for an historical account of this interesting people, as they themselves have no oral traditions of any importance, nor are there any records or monuments of antiquity extant amongst them. All they know of their ancestors is confined to this, that they expelled the *Kablunät* or former colonists of the country. The circumstances attending this event will involve the most rational accounts of the origin of the nation. Meanwhile we shall briefly relate how this land was discovered, colonized, and lost, by the Europeans; and how it was afterwards again sought and found.

It is well known that since the fifth century, the tribes of the north have acted a distinguished part in the history of the world; they have supported mighty fleets, and kept the coasts of Europe in constant alarm by their piratical inroads; while they have also discovered unknown countries, founded flourishing colonies, and conquered and governed whole nations and kingdoms. Rome has not only trembled before the ancient Cimbri, but often crouched under the yoke of those

barbarians, who, in later times, poured down like a deluge from the north. The Norwegians or *Northmen*, have given an appellation to the large province of Normandy, and their name and fame are inseparably connected with the annals of English history. Some philosophers, and the celebrated Hugo Grotius among the rest, have gone so far as to ascribe to them the peopling of the new world. This opinion has been proved by others to be groundless. It is, however, incontestible, that the Orcades, Iceland, and Greenland, were first discovered, or at least first peopled by these adventurers.

According to the account of the learned Icelander, Arngrim Jonas, Iceland was first discovered by a Norwegian of the name of *Naddok*, who intending to go to the isle of Faroe, stumbled accidentally upon this coast, and called it *Snowland*. Flokko, a pirate, hearing of this new island, set out in search of it, and in default of a compass steered his course, like another Noah, by the flight of a raven. The bird being turned up in the middle of the sea, instinctively flew towards the land, and Flokko confidently following his conductor, arrived at the island, to which, from the quantity of the surrounding ice, he gave the name of Iceland.

Norway was at this time already under regal government, though the greater part was parcelled out amongst a multitude of *Jarls* or Earls, who were extremely troublesome to their feudal head, and exercised great oppression over their vassals; but immediately prior to the period of which we treat they were reduced to subordination by king Harold Haarfager. One of these earls, Ingolf, who loved his liberty better than his native country, emigrated to Iceland with his brother-in-law Hiorleif, and a numerous company of their retainers, all devoted to heathenism. These, according to Arngrim, were the earliest settlers in that island, where they cultivated the ground, then very productive of corn and wood, and erected a republic, which did honour to that barbarous age. This is said to have taken place A. D. 874. But there are many concurrent testimo-

nies which make it probable that this island, though it be not the Thule of the ancients, was already inhabited long before the arrival of Ingolf, and its coasts navigated by the Irish fishing smacks.*

II. Amongst those earls who submitted to King Harold, was one of the name of Thorrer, who is described as so rich that he possessed three islands in the northern part of Norway, with eighty fat oxen grazing on each, whence he was surnamed *Yxna* or *Oxen-Thorrer*. He presented one of these islands with all the oxen upon it to King Harold, to furnish a dinner for his army, and thus conciliated the royal favour. His great grandson Thorwald, lived for a time at the court of Count Hagen in great splendor, but being obliged to flee the country on account of a murder which he had committed, he went over with a new colony to Iceland, and cultivated a tract of ground there. His son Eric Raude, or the *Red-headed*, made considerable additions to the paternal domain. But a powerful neighbour, Eyolf Saur, killed some of his vassals, and Eric avenged the insult and the injury by the blood of Eyolf. Alarmed for the probable consequences of this murder, and endangered by a feud with the mighty Thorgest, who forcibly detained the family gods entrusted to him by Thowald in his flight, Eric found it necessary to seek for some more remote asylum. He had been informed, that a certain Gunbiœrn had discovered several cliffs frequented by fish to the west of the island, which from him were called *Gunbiarn's Shears*, and that still farther to the west, he had descried an extensive country. Hither the fugitive Eric, who had been sentenced to a banishment of three years, directed his researches, and first came in sight of the main land at *Herjolf's Ness*; then proceeding southwest along the coast, he wintered in a pleasant island, and named the strait adjacent, *Eric's Sound*. The following summer he spent in examining the main land, and returned in the third year to Ice-

* See *Peyrere, Relation de l'Islande à M. de la Mothe le Vayer*, Sect. XLIII.

land. The glowing description which he gave of the verdant meadows, the woods, and the fisheries of his new discovery, which he called *Greenland*, allured such multitudes that twenty-five ships full of colonists followed him thither in the ensuing spring, with a large stock of household goods, and all sorts of cattle; but fourteen only of the vessels arrived at the place of their destination. New swarms of colonists followed in the course of years from Iceland and Norway, and planted their settlements so thickly along the east and west coasts that the inhabitants were calculated to be a third part as numerous as the population of a Danish episcopal diocese.

The chronology of these events is variously given by authors. There are two main sources of the Greenland history. One is the *Iceland Chronicle* of the very ancient northern historian, Snorro Sturlesen, who about the year 1215, was Nomophylax or Justiciary of the government in Iceland. His authority is followed both by the learned Arngrim Jonas, coadjutor of the Icelandic bishop, Gunbrand Thorlak, in the beginning of the 17th century, and by the royal Historiographer Thormoder Torlæus, a native of Iceland, in his *Grœnlandia Antiqua*, a work which I have found particularly useful. These authors fix the discovery of Greenland to the year 982. On the other hand, certain Greenland annals in Danish verse by a divine, Claudius Christophersen, or Lyscander, assign the year 770, for the true date. And this computation not only derives some countenance from the antiquities of Iceland, but is still more strongly corroborated by a Bull of Pope Gregory IV. issued in the year 835, which commits the conversion of the northern nations, and of the Icelanders and Greenlanders expressly, to Ansgarius, the first apostle of the north, who had been made archbishop of Hamburgh, by the emperor Lewis the Pious. If this Bull is authentic, which we see no reason to doubt, Greenland must have been discovered and inhabited by the Norwegians, at least as early as the year 830.

III. A still greater discrepancy exists in the descriptions of the country, not only between the Icelandic and

Danish chronicles, but amongst the Icelanders themselves, and Torfæus with all his assiduity has not been able to reconcile these jarring accounts. In his map he generally follows the descriptions of *Ivar Beer*, who, in the fourteenth century, was master of the household and Justiciary to the bishop of Greenland. According to his relation, Greenland was cultivated both on the east and west coasts. The former, or *Oster Bygd*, now called Old or Lost Greenland, is divided into two parts by Herjolf's Ness, a promontory in lat. 63°. "Under this promontory," writes Theodore Thorlak, bishop of Iceland in the 17th century, "lies the *Skaga-fiorde*, but a long sand-bank, extending across the mouth of this bay, bars access to large vessels, except at high water. Shoals of whales and other fish likewise enter with the tide; but no one dares fish without the leave of the bishop, to whom the bay belongs. Further to the east is the bay *Ollum lengri*, or the long inlet, the end of which has never yet been found. A vast number of small islands, called Holms, are scattered in the bay, with level plains overgrown with long grass."

This long inlet may probably meet the Icefiord in Disko Bay on the opposite coast, which the Greenlanders report to have been an open passage in former times; Torfæus places it in lat. 66°. All the land north of this bay he calls *Obygdr*, or desert places, where only one bay has been observed, which has received the name of *Funkabudr*, from Funka, a servant of Olaus, king of Norway, who was shipwrecked and buried there. Two large icebergs are noted on the main land; the one called *Blaaserken* or Blue-shirt, and the other *Huitserken* or White-shirt, from the different colours of the ice. Half-way between *Snæfels Ness*, the western cape of Iceland, and Herjolf's Ness, which are about ninety leagues distant, the mariner may descry at once both the Blaaserk in Greenland, and the Snæfels Iökel, or ice-mountain, in Iceland.

Between Herjolf's Ness and Staatenhuk, there were a greater number of inhabited bays. Those most worthy of note are the following:—*Ketil's Inlet*, where there

are said to have been two parishes and a cloister of monks, dedicated to St. Olaus and St. Augustine. Further south, *Raven Inlet*, where there stood a nunnery sacred to St. Olaus. "In *Einar's Bay*, which divides itself into several branches," continues the Theodore above quoted, "the small promontory of *Klining* appears to the left of the entrance, and a large wood to the right, which affords pasturage to the great and small cattle of the cathedral church at the end of the bay, near the village of Gardar. The large island of *Rinsey* lies at the mouth of the inlet. Herds of rein-deer browse upon it, and the best weichstein is found here, of which the Greenlanders make pitchers and vessels of the capacity of ten or twelve barrels, (*vasa decem vel duodecim tonnarum capacia,*) firm enough to endure the fire. Farther to the west is *Long Island*, where there are eight farms belonging to the bishop's see: the tenths, however, are claimed by the church of Hvalfseyre. Next comes *Eric's Bay*, ennobled by the beautiful manor of Brattahlid, the seat of the chief justiciary. On the *Wester-Bygd* is the great church of Ströms-Ness, for a long time the cathedral church and the residence of the bishop."

Thus far Thorlak in Torfæus. Nineteen peopled friths are enumerated on the east side. One hundred and ninety villages, or rather farms, (*villæ, prædia,* as Torfæus calls them,) are reported to have crowned their shores. These were distributed into twelve parishes, and supported an episcopal see with two convents. Torfæus in his chart bounds the limit of cultivation by the Strait of Frobisher, and considers the country south of this on both coasts as uninhabited. But we now know that on the west side the greatest number of the most perfect ruins are found between Frobisher's Strait and Capè Farewell, so that the settlements on the east side probably extended beyond that boundary. We are told, that a six-oared boat might sail for six days from the east to the west Bygd, without meeting with any human being; and this is exactly the time which the Greenlanders require to row in a light

woman's boat from the east coast to Onartok on the west coast.

On the west side, nine inhabited bays are mentioned, once occupied by 90, or according to others 110, hamlets or farms, which constituted four parishes. These habitations, as far as can be judged from their ruins, extended to about lat. 65°. All the habitable spots of land therefore, from lat. 65°, on the east coast to the same height on the west coast, were occupied by the Norwegians. The *Skrælings* were their northern neighbours on the west side; but on the east coast, the ice precluded any settled residence nearer to the pole.

IV. The temperature of the air and the face of the country on the eastern coast, may be inferred from the description already given of the west. Yet since common report has represented Lost Greenland in such a flattering light, a few extracts from Torfæus may be introduced to attest the sober truth.

Following the authority of the *Speculum Regale*, an Icelandic work of great antiquity, he says: "The air is more calm and settled in Greenland, and the cold less intense than in Iceland and Norway. An excessive frost, indeed, sometimes sets in, and the tempests rage more furiously than in any other part of the world; but they are of rare occurrence and short duration, and are never so violent as to kill the cattle." The author of this old book, who is said to have lived in the 12th century, likewise describes the northern lights which he calls *Nordrlios* as a phænomenon already known, but observed in no part of the world besides Greenland. Peyrere, formerly secretary to a French ambassador at the northern courts, wrote his *Relation* in the year 1646, wherein he speaks of this appearance as a prodigy which he should not dare mention, were it not attested by the Icelandic Chronicle. He likewise relates from the Danish records, that in the year 1308, a terrible storm of thunder and lightning burnt down a church in Greenland, and was attended by a dreadful hurricane which tore off the summits of the rocks, so that the particles of dust from the broken fragments

flew about in the air like rain. This tempest was followed by a winter more severe than any before experienced, and the ice it left behind remained for a whole year unmelted.

Various and even contradictory accounts have been given of the fruitfulness of the country. The Icelandic annals sometimes describe it as producing the best wheat, and then again, as rendered absolutely sterile by the excessive cold. We read of woods, where the colonists hunted white bears, though that animal seeks its nourishment in the sea, and of oak trees bearing acorns as large as apples, and of a taste equally agreeable with that of chesnuts. The most probable account, and that which best accords with the nature of the western part of the country, seems to be given by the Danish Chronicle, which tells us that Eric Raude lived only upon fish, but that his successors by degrees cultivated meadows in the valleys for pasturage. The testimony of Torfæus is to the same effect*: "People of property have made several attempts to grow corn, but the quantity produced has been very inconsiderable, the seed being destroyed by the severe frosts. The common people have never seen corn, nor do they know what bread is. In other respects the land is described as very fertile, abounding in rich pastures, and producing very large fat oxen, cows, sheep, and goats, which supply large dairies with butter and cheese."

When Greenland, therefore, is ranked among the fiefs that supplied the royal table, whither none but the king's ships had leave to sail, to bring away the luxuriant produce of the country, it is to be understood as relating only to the excellent cattle, which are generally fattest and best flavoured in mountainous countries.

Besides the animals common to the west coast, Icelandic writers speak of wolves, lynxes, beavers, sables, and martens; as also of white eagles, and falcons. Torfæus likewise describes, from the Speculum Regale,

* Ch. XV. *De Grœnlandorum Victu.*

six kinds of seals, besides the rostungar or *walrus*, and twenty-three species of the whale, most of which agree with those above described.

V. The history of the Norwegians in Greenland is little else but a rambling, incoherent account of feuds and murders, with several well-devised romances interspersed, which Torfæus confutes as he relates them. It appears from his brief annals, which contain little more than the succession of bishops in Greenland, that Leif, the son of Eric Raude, went over in the year 999 to Norway, where he laid the state of the new colony before the reigning king, Olaus Tryggeson, and spent the winter at his court. This king, who had been recently converted to Christianity, and was very zealous to spread his new religion, persuaded Leif to be baptized, and to take back with him a priest to Greenland. On his return he picked up several shipwrecked sailors who were swimming on the fragments of their vessels, and brought them with him to land. His father was much displeased with him for this act of charity, and for bringing with him a Norwegian priest, dreading lest foreigners might find the way to his new settlement, and dispossess him. But he was calmed by the remonstrances of his son, who represented that in saving the unfortunate he had only fulfilled one of the common duties of humanity, which nature requires of men, and which Christianity enforces still more strongly, and rewards more gloriously: he even consented to listen to the priest, and the result was, that he embraced the Christian religion, and the rest of the colony followed his example.

About the same time the Icelanders deserted their Scandinavian creed, and renounced their adoration of Thor, Odin, Thyr, and Freya, for the worship of the true God. Greenland was continually receiving new colonists from the mother countries, part of whom were already Christians. Amongst these a wonderful story is told of one Thorgils, a new but zealous convert, who went to Greenland in spite of his former gods, and

underwent a long train of persecutions from the Arch-Fiend, together with many disastrous accidents by sea and land, after which, like Job and Tobias, he attained to great honour and happiness.

When, in process of time, the Christian population had become extremely numerous, and many churches were erected, Sok, the grandson of Leif, summoned the people to assemble at Brattahlid, in the year 1122, and represented to them that the honour of the people, and the preservation of religion, called upon them to have a bishop of their own, like other nations, and to allot certain funds for his support. This proposal was unanimously adopted, and Sok's son, Einar, carrying with him a present of walrus teeth and skins, was delegated to king Sigurd, with a petition to grant them a bishop. The king made choice of Arnold, a learned priest, for this office. Arnold pleaded his ignorance, and the roughness of the people, who would not be governed by bare admonitions and reproofs. But when Einar bound himself by an oath to protect the property and rights of the church with all his might, Arnold accepted the call, and was consecrated bishop of Greenland, by Archbishop Ascher, at Lund in Schonen. On his voyage, he was driven by a storm to the coast of Iceland, where he passed the winter in the house of Sæmund Frode, the old Iceland writer. It is recorded, as a monument of his humility, that he mended a poor woman's broken wool-comb, during his stay in the country. The year following he arrived in Greenland, and fixed his residence at Gardar.

Many Norwegians of rank followed in the train of the bishop. One of them of the name of Arnbiörn, ran aground in a storm with two ships on the desert coast to the north. Nothing being heard of his fate, it was believed that he had been swallowed up by the sea, till a Greenland fisherman called Sigurd, penetrating into that part of the country, discovered the wreck of one of the ships, and the other still fit for service and freighted with goods. On the adjacent shore, he found a house full of corpses

which he buried, and repairing the ship, brought it with its cargo to the bishop, who suffered him to retain the goods but appropriated the ship itself to the church.

Some time afterwards, Ausur, the nephew of the unfortunate Arnbiörn came to Greenland, and demanded his uncle's effects. Einar, who had promised to defend the claims of the church, refused his demand in an assembly of the people. The exasperated Ausur secretly destroyed the disputed ship, and repairing to the western coast met with two merchant vessels, whose crews he prevailed upon to lend him their assistance, and revenge still further the injury offered in his person to all Norwegian subjects. On his return to Gardar, Einar piqued by a reproof from the bishop, for suffering the property of the church to be damaged contrary to his oath, treacherously slew him with an axe in the churchyard, as they were returning together from divine service. His comrades immediately rose to revenge his death. Old Sok vainly attempted to compromse the matter in a general assembly, by the offer of a trifling pecuniary compensation for the blood of their leader, and they murdered his son Einar on the spot. A confused affray instantly arose, in which several lives were lost on both sides. Sok proposed to attack the three ships, but was persuaded by a discreet old farmer to lay aside his purpose, and enter into a treaty with the murderers of his son. Ausur's party having lost one man more than their adversaries, Sok paid a sum of money to make up the difference, on condition that the intruders should immediately weigh anchor and leave the country to return no more. The story is told at length by Torfæus, but this brief abstract will be sufficient to illustrate the manners and government of the old Norwegians in Greenland.

The Danish chronicle tells us that the Greenlanders became tributary to the kings of Norway, An. 1023, which was soon after they had embraced the christian religion; and that in the year 1256, during the reign of Magnus, they attempted to throw off the yoke, but Eric Glipping, King of Denmark, having fitted out a consi-

derable fleet for his assistance, they were obliged to make their peace with their sovereign, An. 1267. Torfæus passes this over in silence, and maintains that in the last mentioned year, the Greenland colonists together with the Icelanders, voluntarily submitted to the Norwegian sceptre, promising to pay a moderate tribute, and to punish every murder, whether of foreigners or natives, which should occur within their territories, even though it should be committed under the pole. From that time they were governed by a Norwegian viceroy, according to the laws of Iceland, and after an archbishopric was erected at Drontheim in Norway, the Greenland bishops, became suffragans to that see.

According to Torfæus, the bishops succeeded each other, in the following series:

1. Eric, who lived before the year 1120. He was never regularly ordained a bishop and had no episcopal seat, but principally travelled round the country to edify the churches, and at length went over to Wineland to convert the heathen there.

2. Arnold, 1122; he was afterwards the first bishop of Hammer in Norway.

3. Jonas I. 1150.

4. Jonas II. 1188.

5. Helgo, 1212.

6. Nicholas, 1234.

7. Olaus, 1246. Under this bishop, three Greenland deputies, Odd, Paul, and Leif, were sent to the court of Norway, either to make peace, or to offer their allegiance to the crown. This prelate likewise assisted in the installation of Haco, archbishop of Drontheim.

8. Thorder, or Theodore, 1288.

9. Arno, 1314.

10. Jonas Calvus, 1343.

Thus far the list of Torfæus.

Baron Holberg in his history of Denmark, adds the following, collected from the Danish chancellor and historian Hvitfeld.

11. Alpho, in whose time the Skrœllings or savages, were first seen in Greenland.

12. Berthold.
13. Gregory.
14. Andrew.
15. John.
16. Henry. This prelate is said to have been present in 1386, at the assembly of the nobles convoked by King Olaus at Nyburg in Fünen, where he and other bishops procured various immunities for the churches and convents. About this time the navigation to Greenland ceased, and no intelligence being received from thence, Askill, archbishop of Drontheim, in the year 1408, consecrated,

17. Andrew, bishop of Greenland, and sent him to supply the place of Henry in case he should be dead, but it was never heard, whether he arrived at his diocese.

A long time elapsed, and Greenland was no more remembered, except to give a title to some bishop. We find a document of the date of 1533, in which the suffragan bishop of Roschild subscribes himself bishop of Greenland.*

VI. There is nothing to warrant the supposition that the Greenland-Norwegians possessed any military force either by sea or land. The Greenland trade is described as very considerable, and it may easily be credited, that many excellent cattle, and large quantities of butter, cheese, fish, and pelts were exported. It appears that this traffic was carried on by foreign ships, and that they themselves neglected navigation. The original settlers must, however, have been well skilled in this art. They not only sailed in their own vessels from Iceland and Norway to Greenland, but the first discovery and navigation of North America is ascribed to them. This piece of history is too singular, and too little known to be passed over in silence. It is related at length by Mallet,† and Pontoppidan,‡ from Arngrim Jonas, and

* See Note XV.
† *Introduction a l'Histoire de Dannemarc*, pp. 174, 190.
‡ *Nat. Hist. of Norway*, pp. 423, 433.

Torfæus, and corroborated by the testimony of Adam Bremensis, who wrote in the middle of the eleventh century, consequently about the time of this discovery.

Herjolf, an Icelander, was in the habit of making a trading voyage every year, along with his son Biörn into different countries. During their annual expedition in 1001, they were separated from each other by a storm. Biörn on his arrival in Norway, learning that his father had sailed for Greenland, which was then little known, followed him thither; but a storm arising drove him to the south-west, where he discovered a flat, woody country, and on leaving this coast, came in sight of an island. He made no stay at these places, but as soon as the storm had abated, steered his course without delay to Greenland. When this adventure became known, Leif, the son of Eric the Red, emulous of the fame which his father had acquired by the discovery and colonizing of new lands, fitted out a ship with thirty-five men, and set sail in company with Biörn. The first land which they discovered was stony and barren. They gave it the name of *Helleland,* or flat land. They next came to a low coast, covered with white sand, and enlivened by a few trees. This they called *Markland,* or level land. Two days afterwards they came in sight of another coast with an island to the north. Sailing with the tide up a river, whose banks were covered with bushes bearing sweet berries, they arrived at a lake which appeared to be its source. The air was mild, the soil fruitful, and the water was stocked with a variety of fishes, particularly large salmon. They spent the winter there, and found that on the shortest day, the sun rose at eight, a circumstance which fixes the place of their visit to the 49th deg. or the latitude of Newfoundland or the river St. Lawrence in Canada.

Having built some huts for a temporary residence, they missed a German sailor named Tyrker, whom they found, after a long search in the woods, dancing about with every expression of unusual glee. On enquiring into the cause of his mirth, he answered, that he had eaten grapes such as wine was made from in his own country.

When Leif saw and tasted these grapes himself, he called his new country *Viinland*, or Wineland.*

The adventurers returned in the spring to Greenland. Leif's brother, Thorwald, was eager to follow up these discoveries; and sailing thither with Leif's crew the same year, he examined the country to the westward, and in the following summer pursued his researches eastward. The coast, which was thickly covered with wood, and lined with numerous islands, exhibited no vestiges of man or beast. The third summer they explored the islands, but as their vessel unfortunately bulged against a headland, they were obliged to spend the greater part of the season in repairing her. The old keel being useless, they erected it as a monument on the top of the cape, to which they gave the name of *Kiœlarnes.*

Having refitted the ship, they again reconnoitred the east side of the country, where they fell in with three small boats covered with skins, with three men in each. They seized them all, except one man who escaped, and killed them in mere wantonness. Shortly after, they were attacked by a multitude of the same savages in their boats, but they were so well screened from the shower of arrows by the boards which guarded the ship's sides, and defended themselves with such vigour, that after an hour's skirmish, they compelled their assailants to seek safety in flight.

They bestowed upon these Indians the contemptuous appellation of *Skrœlings*, or dwarfs: Arngrim, following the authority of Myritius, calls them *Pygmæi bicubitales*, and tells us that these poor wretches were likewise found upon the western coast of Greenland, but so feeble and despicable, that there was nothing to fear from them were they ever so numerous. Thorwald alone of all the crew paid the forfeit of his barbarity with his life, having received a wound from an arrow in the skirmish, of which he soon after died. He ordered

* It is known that well-flavoured wild grapes are found in the woods of Canada, but they do not yield any good wine.

a cross to be erected at the head and foot of his grave; and hence the scene of this event derived the name of *Krossa-Ness.** His people spent the winter in Wineland, and returned home in the ensuing spring.

Thorstein, the third son of Eric the Red, set out for Wineland the same year, accompanied by his wife Gudrid, his children, and domestics, twenty-five persons in all, chiefly with a view to bring away the body of his brother. He was driven by a storm to West Greenland, on a part of the coast remote from the Norwegian settlements, and encamping there was carried off by an epidemical sickness, together with some of his followers. His wife carried his corpse home the next year.

From this period the project of establishing a colony in Wineland was more seriously meditated. Thorfin, an Iceland chief, by the marriage of Gudrid inherited Thorstein's right to Wineland, and transported thither a colony of sixty men, and five women, taking with him various kinds of cattle, and instruments to till the ground. The Skrœlings presently resorted to the new settlement, offering their fells in sale. They appeared desirous of some weapons in exchange, but Thorfin had laid a strict injunction on his people not to part with them. One of the savages, however, contrived to steal a hatchet, and was stupid enough to try its edge on his companion; the consequence of the blow was instant death; upon which a third took up the hatchet, eyed it attentively for a while, and then threw it into the sea.

Three years afterwards Thorfin returned to Greenland, and the valuable merchandize which he brought with him, inflamed many with a desire of seeking their fortunes in Wineland. He himself settled in Iceland, where he built himself a princely house. After his death Gudrid made a journey to Rome, and at length

* From this it appears that Thorwald was a Christian like his brother Leif. The rest of the Greenlanders, Icelanders, and especially Norwegians, who from time to time repaired to Wineland, were probably heathens who preferred living in a strange land to embracing the religion of Christ, which was then violently propagated in Norway by Olaus Tryggeson.

ended her days in a convent in Iceland, built by her son Snorro, who was born in Wineland.

Meanwhile two Icelanders, Helgo and Finbog, fitted out each a ship with thirty men for Wineland, and took with them a daughter of Eric the Red, named Freidis. This woman instigated an insurrection in the new colony, in which thirty persons perished, amongst whom were Helgo and Finbog. After causing this bloodshed she returned to Greenland, where she lived detested by all, and died in extreme misery. The remaining colonists probably fled, and dispersed themselves over the country, for fear of punishment. We have at least from that time no accounts of this colony, except that one hundred years after the discovery of the country, Eric, a Greenland bishop, is said to have gone thither to convert his forlorn countrymen. From these outcasts are probably descended the present Indians in the neighbourhood of Newfoundland, who are so strikingly distinguished by their person and mode of life from other Americans.

VII. No satisfactory proofs can be produced that Greenland was inhabited before the arrival of its Norwegian discoverers. We are indeed informed by the metrical Danish chronicle so frequently quoted, that certain Armenians were driven to this country by a storm, who from hence peopled Norway and America; and we are further told that many tribes were even then found in Greenland, each acknowledging the authority of its own particular chief. But the writer of these annals so frequently sacrifices the austerity of history to his character of poet, that his authority can have but little weight. The most ancient Icelandic writers, of whom Sæmund Frode, Arius Polyhistor, Snorro Sturlesen, and others, wrote as early as the 12th century, relate that though pieces of broken oars were sometimes found on the strand, no human beings were ever seen either on the east or west coasts.

The first Skrælings seen by Europeans, were those whom Thorwald met with in Wineland, and murdered some of them. In the 14th century they all at once

made their appearance in West Greenland, where they killed eighteen Norwegians, and carried away two boys prisoners. Ivar Beer the Greenland Justiciary, was sent with some ships by the bishop to expel these savages from the coast; but on landing he found that all the invaders had fled, and left behind them a large drove of sheep and oxen. Of these, he killed as many as he could stow in his ships, and returned without attempting any thing further. Torfæus refers this occurrence to the year 1349. Since that period our annals are silent as to the Skrœlings, and all accounts of the state of Greenland draw to a close soon after.

Peyrere cites the opinion of the learned Wormius that the Skrœlings first showed themselves on the north bank of Kindel's Inlet, the northernmost bay which the Norwegians occupied on the west side. Some hot-headed Norwegians then ventured across, and according to custom insulted the contemptible Skrœlings,* but their temerity cost them their lives. He farther supposes that these savages as soon as they saw Ivar Beer's squadron, concealed themselves in the cavities of the hills, which was the reason that no people were found along with the cattle.

It appears therefore most probable, that the present race of savages first came to Greenland in the 14th century, not from Europe, but from North America. If they are of European origin, they must either be supposed to have travelled by way of Nova Zembla and Spitsbergen, in some such manner as the famous Hallur Geit,† who, if we may credit the story, performed a journey from Greenland to Norway on foot, attended only by a goat, whose milk supplied him with nourishment, and from which he received the surname of *Geit*;* but the discoveries in the Icy sea, which prove the insular situation of these countries, are fatal to this hypothesis. Or they must have crossed the hyperbo-

* This conjecture harmonizes with the tradition of the Greenlanders respecting the origin of the Kablunæt, and their wars with the Innuit.

† *Torfæus apud Torfæum*, p. 25.

d worked their way through fields of ice, arks. Or lastly, we must have recourse improbable supposition, that like Helgo, brated by Arngrim, they were transported to Greenland on a huge ice-flake.

our knowledge of the northern nations Calmucks,* Jakutes, Tungusians, and es, who occupy the north easterly regions of Great Tartary between Mongolia and the Arctic ocean, appear to bear a greater affinity to our Greenlanders than the Laplanders, Samoiedes, and Ostiacks, or any of the tribes bordering upon the north and north west of the same sea. Our Greenlanders, it should seem, having settled in Tartary after the grand dispersion of the nations, were gradually impelled northward by the tide of emigration, till they reached the extreme corner of Kamtschatka, and finding themselves disturbed even in these remote seats, they crossed the Strait to the neighbouring continent of America. It does not necessarily follow from hence, that America was originally peopled by them; there are various ways in which that vast hemisphere might have been stocked with inhabitants, at a period greatly prior to the settlement of these fugitives. The chief part of the American tribes differ too widely from the Greenlanders to countenance the notion of a indred origin. All that I contend for is that the

* More properly written *Kallmak*, as they call themselves by a name compounded of *Kall*, to settle, and *Umak*, a tribe. Now the Greenlanders call their original ancestor *Kallak*, and *Umiak* is the name for a large boat, which carries a whole family at once. Strahlenberg in his "*Description of the north and east parts of Asia*," says in several places, on the credit of Abulgasi Chan, that Og or Ogus Chan, who reigned in Tartary long before the birth of Christ, made an inroad into the southern provinces of Asia, and as some of his tribes declined following him, being terrified by a deep snow, they were afterwards called *Kall-atzi* and *Karlik* in derision. Now this Karlik, in the plural *Karalit*, is the name which the Greenlanders give th...selves. I have likewise observed so great a similarity between them and the Calmucks, both in their stature and manners, and in several family surnames which the Greenlanders have preserved without knowing their meaning, that I apprehend they bear a nearer relationship to them, than to any other Asiatic nations.

northernmost tract of the new world, was thus peopled. Other writers, as well as myself, have remarked a great similarity between the natives of North America and Siberia, in food, dress, manners, and even in religion, and have inferred from hence the Asiatic descent of the former. The Russian Captains Behring, Spangenberg, and Tschirikow, with the last of whom Professor de Lisle sailed, during their voyages of discovery undertaken between the years 1725 and 1740, found the same dress, leather boats, and mode of life prevailing among the inhabitants of the Aleutian isles, as those of the Greenlanders.*

Even before the discovery of Behring's Strait, the proximity of the two continents had been presumed by geographers, as the only method of explaining the existence of wild animals in the new world. The same consideration led the old Icelanders to believe that Greenland was contiguous to Lapland. *Charlevoix* tells us in his dissertation on the origin of the Americans, that the Jesuit Grellon in his Chinese mission, met with a Huron woman in Tartary, who had been formerly baptized by him, during his labours in Canada. She had been taken captive in war, and transferred through the hands of several masters, till she came to Tartary. Another Jesuit is said to have found in China, a Spanish woman from Florida, who having been carried off by the Indians, travelled through some very cold countries, and arrived at length in Tartary, where she married a Tartar soldier.†

* This subject may be seen more fully treated in Professor's Muller's *Collection of Russian Transactions*, vol. iii. p. 214. The natives of the American coasts, came a-board in small canoes, shaped like the Greenland kajaks. It is true, they did not understand the Tschuktschi whom the Russians had brought with them from Kamtschatka as interpreters, but on account of the size and shape of the strangers, they evidently considered them as of the same race with themselves. These Tschuktschi have no canoes, but their large boats which they call Baidars, carrying from 30 to 40 men, are constructed of ribs of wood or whalebone, and covered with seal-skins. See *Strahlenberg's Description*, p. 427.

† *Journal des Voyages*, &c. p. 15.

Our savages then, retired before their pursuers, across the narrow strait, either by a direct navigation, or by a more gradual passage from island to island, to America, where they could spread themselves without opposition through the unoccupied wastes round the south-east part of Hudson's Bay, or through Canada up to the northern ocean. And here they were first met with in the eleventh century by the discoverers of Wineland. But when they were compelled to evacuate these possessions likewise, by the numerous tribes of Indians superior to themselves in strength and valour, who thronged to the north out of Florida, they receded nearer to the pole, as far as the 60th deg. Here Ellis, in his voyage to Hudson's Bay, found the Esquimaux*, resembling the Greenlanders in every particular of dress, figure, boats, weapons, houses, manners, and customs. He would have perceived a similar agreement in the languages of the two nations, had he known more of either than the single word *Tukto*, a reindeer, which is the same in both.†

The clerk of the *California*‡ says, that these Esquimaux are grievously harassed by the Indians inhabiting the south and west shores of Hudsons's Bay, who are in all respects a distinct race. An unsuccessful hunting or fishing expedition is a sufficient pretext, for their oppressors to fall upon them, and take them prisoners or murder them. These acts of violence have induced the fugitives to retreat so far to the northward; and part of them in all probability passed over to Greenland in the 14th century, either crossing Davis's Strait in their boats, from *Cape Walsingham*, in lat. 66° to the South bay, a distance of scarcely forty leagues; or otherwise proceeding by land round the extremity of Baffin's Bay, where, if we may trust the reports of the Greenlanders.

* Charlevoix derives this name from the Indian word *Eskimantsi* which, in the language of the Abenaquis, signifies *to eat raw*; and it is certain that they eat raw fish.

† See Appendix to Vol. II.

‡ Account of a Voyage for the Discovery of a North-west Passage, Vol. II. p. 43.

stone-crosses, like guide-posts, are still to be seen at intervals along the coast.*

VIII. A difficulty here forces itself upon our consideration respecting the manner in which the Skrœlings became the sole occupants of the country, on both its coasts. We are not to imagine that a feeble and dastardly race, who fled at the very appearance of an enemy; who, rather than face a horde of Indians no better armed than themselves, slunk away into the coldest and most desolate regions of the north; and who to this day possess neither the courage nor the means for self-defence, should be capable of over-matching the Norwegians, a nation of conquerors, invading their populous colonies, barricadoed as they were by craggy rocks, and destroying them root and branch, so that not a living vestige of them is now to be found. There are besides no further records of any thing like a war, than the slaughter of eighteen Norwegians already mentioned. A pestilence, with its attendant miseries, appears to have been the principal instrument in depopulating these numerous colonies, and preparing the way for their extermination by the savages. This plague, which was called the *Black Death*, spread its ravages about the year 1350, and raged so virulently throughout all Europe, that not only the animal kingdom was infected, but the very roots of trees, and shrubs, and herbage withered away, leaving whole countries blasted and desolate. Its baneful influence was peculiarly felt in the countries of the north; and Greenland, from the continual commerce which it carried on with Norway, could scarcely escape the contagion. The want of seamen, and the rapid decrease of cattle, the staple produce of Greenland, occasioned a considerable decline in the intercourse with the mother-country. The savages extended their limits; the feeble remnant of Europeans yielded up to them the western side, drawing continually closer together for mutual defence; and Ivar Beer concludes his history with lamenting that the Skrælings now possessed the whole West-Bygd.

* See Note XVI.

After the plague, some merchants again sent vessels to Greenland. A process was commenced against them by Queen Margaret, in 1389, for trading without her permission, to a country which, like Iceland, Faroe and Finmark, belonged to the royal domains.* She and her successors, however, no longer resided in Norway, and the union of the three northern crowns at Calmar involved them in too many cares to allow them to think of the forlorn Greenlanders. At the same time many vessels were lost by storms, which operated still more to the discouragement of the merchants, and induced them at length to abandon the trade altogether.† The deserted colonists might now with little difficulty be hemmed in, starved, and murdered by the savages, or driven to the disagreeable alternative of incorporating with them, and adopting their mode of life. The regency at length recollected their situation, and sent over Bishop Andrew in 1408. But we have no certain intelligence either of his fate, or that of his destined flock, whether they were all carried off by the plague, or murdered by the barbarians‡; or whether, in agreement with the common opinion, a few survivors still dwell on the remote banks of the inlets, sheltered by the mountains.

Some traces of their existence were discovered long afterwards. About the year 1530, Bishop Amund, of Skalholt in Iceland, on his return from Norway, was driven by a storm so near to the coast of Greenland off Herjolf's Ness, that he could see the inhabitants driving home their cattle. He did not, however, go on land, wishing to take advantage of a favourable gale which sprung up at the time and carried them to Iceland

* *Pontanus*, ap. Torfœum, p. 24.

† *Lyscander*, ap. Torfœum, p. 25.

‡ There is a district in Baal's River called *Pissiksarbik*, the place of shooting or field of battle. This is believed to have been the theatre of a skirmish between the Norwegians and the Skrœlings. On the other side of the water, over which a boat may row in half an hour, there still exist some Pudera, and the Greenlanders say that the place owes its name to a rencontre of former times, in which the opposite parties discharged their arrows at each other across the river.

before the next morning. The Icelander Biœrn of Skardsa, from whom we have this account, also relates that Jon Grœnlander, a Hamburgh seaman, was thrice driven among the Greenland islands, where he saw fishers' huts like those of Iceland, but could discern no people in the neighbourhood. Fragments of shattered boats, according to the same authority, have frequently been stranded on the coast of Iceland; and in 1625, an entire canoe was driveh on shore, compacted of sinews and wooden pegs, and smeared over with blubber. An oar has since been found, inscribed in Runic characters, with the words, *Oft var ek dasa, dur ek dro thik:* "Oft was I tired, while I drew thee."

A German author, Dithmar Blefken, tells us, that being in Iceland, in 1546, he met with a Dominican monk from the monastery of St. Thomas in Greenland, who having in the preceding year accompanied his bishop from that country to Norway, had finally settled in Iceland. From this monk he professes to have received a description of the monastery; and though the incoherence of his account makes it appear extremely questionable, I find it confirmed by Cæsar * Longinus. He mentions that James Hall, an Englishman, who made many voyages to Iceland and Greenland in the Danish service, and gave a most detailed and faithful report of the state of the Greenlanders, likewise conversed with the same monk in presence of the governor of Iceland. To this person also he gave an account of his convent, stating, "that it contained a well of hot water, which being conducted in pipes through all the apartments, warmed not only them, but also the chambers of the upper story; that meat was boiled in this spring as quickly as over a fire; that the walls of the convent were composed of pumice stone; and that hot water poured upon stones of this substance, reduced them to the consistence of clay, so that they could be used for mortar."

We meet with a similar notice of this convent in the

* Extract of all Travels and Voyages, Part. II. p. 147.

Danish Chronicle, with the addition of a garden, which being irrigated by a tepid rivulet, produced the most luxuriant flowers and fruits. Our oldest Icelandic authorities, however, pass over both this cloister, and the town of Albè in Greenland in utter silence. The same monk is likewise said to have communicated much information to our Englishman, respecting the character both of the country and its inhabitants, whom he calls *pygmies*, but his stories are not less repugnant to Hall's own narrative, than to our present experience.

IX. Having now noticed all the accounts of East Greenland left us on record by ancient authors, I will, before I quit the subject, add some information regarding its present state, as represented by a company of Greenlanders, who, in the summer of 1752, paid a visit to their relations in New Herrnhut.

"One of these strangers named Kojake, who dwelt five days' journey beyond Onartok, or the Warm Spring, consequently forty leagues up the eastern coast, related that he had in the preceding winter lodged two men of three, who had spent three years in cruising up the east coast in large boats. He knew nothing more of the residence of these people, than that it was at a great distance to the north-east. According to the relation which they gave him of their journey, they passed the first winter which overtook them inactive in their tents. Towards the end of the second year, they found their further progress rendered impracticable by the ice, and in the third year they returned home. They must have advanced as far northward as lat. 66°, for they stated that towards the limits of their journey, the sun never totally set in summer, but illuminated the tops of the mountains even at midnight. They were sometimes obliged to tie their tent and boat upon a sledge drawn by dogs, and thus convey them over the ice. The quantity of ice which lay out to sea, made them cautiously keep close to the land, where the ice was in smaller masses, and sooner dissolved by the heat of the sun and the tides.

* Longinus, l. c. p. 137.

They described the inhabitants to be taller than those of the opposite coast. Their hair was black, their beards long, and their complexion, like that of other Greenlanders, was tawny. Little difference was observed in their language, but they had a singing tone. Our voyagers saw no trees or herbage, nor any reindeer or hares, as they did not touch on the mainland, but coasted through the islands. They however saw vast numbers of seals, especially of the spotted and hooded species; likewise many whales, red fish, soles, eider-ducks, partridges, bears, and foxes. These afforded plentiful sustenance to the natives, who were very numerous, and manifested a friendly disposition.

"They saw a beautiful inlet, into which they had not the courage to venture, being afraid of the inhabitants, who were reported to be cannibals. The terror inspired by these people is universal among the Greenlanders. The opinion of our travellers was, that they had been driven to this unnatural food by necessity, and finding it palatable, had adopted the custom of making *Mikkiak* of their dead, depositing it with other flesh in a hole in the ground, till it becomes half putrid and frozen. In the extremity of famine they probably confined their cannibalism to the aged or forsaken orphans, whose lives they thought could better be dispensed with than that of their useful dogs. They build their houses of stone, and cover them with spars of wood, which is however a scarce article. Their clothes are sewed together more coarsely than those of our Greenlanders, owing to the want of iron and needles; a nail found in the drift-wood is a valuable treasure. They have never seen a ship, and they have themselves no boats with sails. In other respects their women's boats, kajaks, and arrows, resemble those of their countrymen. No information could be gleaned on the subject of religion, except that they likewise had their angekoks. Less mist was prevalent than in Davis's Strait, but the snow fell much deeper, and commonly with a south wind." Thus far the narrative of these Greenlanders.

A factor, amongst other particulars relating to the

east side, communicated to me the following circumstance: "In the year 1757," he says, "a Southlander, who wintered at our colony, informed us of a report which he had heard from certain East Greenlanders.

"The purport of it was, that a tribe of people inhabiting the mountainous environs of an inland sea, came down every spring to the sea-shore in considerable numbers. The natives of the coast, whose dread of these invaders is cherished by many traditionary fables, regularly fly at their approach and seek refuge in their islands. Their pursuers, who are unable to follow for want of boats, can only shoot after them with their arrows, which they carry in quivers behind their backs; but they plunder and destroy the deserted villages, and return to the mountains laden with booty."

If this report could be trusted, we might suppose these people to be the same with the cannibals just mentioned; and it is not unlikely that they may be the descendants of the Norwegians, who, protected by their natural barriers, carry on a perpetual war with the savages, in revenge for the ruin of their ancestors, and issuing from their recesses in spring, when their sustenance fails them, rob and pillage without resistance. The panic excited by these predatory incursions, has probably procured them the reputation of man-eaters. From this source have been derived the stories of mountain spirits, both of the giant and dwarfish race, to whose tuition the Europeans are indebted for their knowledge, together with the fable of the *Erkiglit* who live only on the east side, and whom the Greenlanders describe to be, what an old Italian author represents the Norwegians, — man-haters, with faces like a dog's head.

Another factor, who has been already mentioned in an early part of the work, and who was at great pains to collect and reconcile the various recitals of Greenlanders from all quarters, favoured me with the following result of his investigations. "The Greenlanders on the west side," writes my intelligent informer, "run from four to six days in their boats before the sun appears to rise out of the sea, that is, till they double

Staatenhuk. After coasting upwards for several days more, they arrive at a large ice-gulf, which, from the rapidity of the currents and the abundance of ice stretching far out to sea, they dare not undertake to cross. Many reasons induce me to believe that this gulf is part of the strait of Frobisher, once navigable, according to the opinion I have before stated, but blocked up with ice, time immemorial. As nearly as I can judge by the day's run of the Greenlanders, it must be between two hundred and fifty and three hundred miles from Staatenhuk to this ice-bay. In the Dutch charts no fiordes or bays are marked along this line of coast, and the descriptions of the Greenlanders verify this delineation. On this account no small fish, except scolpings, frequent the coast, and the natives must annually make a voyage to Onartok on the west-side to catch angmarset. No shrubs or grass grow there; and consequently there are no reindeer; the fox is the only species of game. Many Greenlanders, however, choose this situation, as it is the resort of a great number of seals, particularly of the hooded species. This eastern tract, from Staatenhuk to the ice-gulf, has long been known to us from our constant intercourse with natives of that country travelling to Disko Bay. But with respect to the territory north and east of Frobisher's strait, which is the proper Oster-bygd, once so thickly covered by an European population, the Greenlanders, prior to the year 1752, could give no better information than that a full-grown whale would scarcely suffice the inhabitants for a single meal, and that they were of a cruel disposition, and devoured human flesh.

"In 1751 two men are said to have returned from an expedition beyond the ice-gulf, who gave a long account of their tour. In 1756, 58, 60, and 61, several families came down from the Oster-bygd to Staatenhuk on voyages of trade. The last company arrived there at the end of July, after a voyage of three months, with two large women's boats and a multitude of kajaks, and returned in a few days, having procured the most necessary articles. I am assured by some Greenlan-

ders, who traded with this last party, and who are now, (1762,) making preparations to pass the winter in Kangek, that they come from a considerable distance north-east of the Ice-gulf, for which reason they distinguish them from themselves by the appellation of Northlanders. They describe them as a simple, timorous people, possessed of very faint conceptions of moral duties. This is the character given of them by the Southlanders, who are themselves regarded as the rudest and most stupid of their race. In body they are tall, and stout of limb, have black hair, but no beard; they speak the Greenlandic, but with a peculiar accent, nearly resembling the dialect spoken in Disko Bay.* Their dress is for the most part the same as that of the west Greenlanders, though their fashions appear to vary. A woman's dress, which I purchased from the narrator of these particulars, has longer flaps than ordinary, and is covered with embroideries coarsely executed. These people have dogs of a species entirely different from those of Greenland, and bearing the greatest similarity to the Iceland breed. They know nothing of the old Norwegians, or of any churches or other buildings possessed by them; but this is accounted for by their living only in the islands, as not merely the friths of the continent are entirely frozen up, but the whole shore is cased with ice, presenting the appearance of a glassy plain. The sea likewise is blocked up for a great part of the year. During this time the inhabitants support life by a black kind of holibut, whose fat they burn in their lamps as a substitute for train. When the ice breaks up, seals are caught in abundance. For the last three or four years they have been surprised like us by the total absence of floating ice, and during these years the sea has brought them unusually large quantities of drift-wood. Iron and bone are the articles of which they

* This seems to prove that they are no descendants of the Norwegians. But, if it is true, as I have heard from other sources, that our Greenlanders cannot understand the language in which they converse amongst themselves, we might at least suppose them to be the offspring of a mixture between the Greenlanders and Europeans.

feel the greatest want. To procure those necessaries they began ten years ago to undertake such dangerous voyages to our Greenlanders. They bring fox-skins, seal-skins, leather thongs, and Weichstein kettles, for which they are content to receive whatever number of blunt knives and needles are given them. Their astonishment is highly excited by the sight of linen and woollen goods, but they express no desire to possess them.

X. Having collected these desultory notices relative to the present state of the Oster-bygd, which I am the more inclined to credit, as they correspond with what might be presupposed from our knowledge of the west-side, I shall give a short account of the exertions made to re-discover this lost country.

A century elapsed under the successors of queen Margaret, every year of which added to that oblivion which threatened to bury the very name of Greenland, when suddenly the discovery of the West Indies at once aroused the dormant spirit of enterprize. The Portuguese had recently opened to themselves a way by sea to the wealth of Hindostan, and it was impossible for England to remain an inactive spectator of these great exertions. Henry VII. sent out Sebastian Cabot in 1497, to find if possible a north-west passage to India. He discovered the whole coast of North America and Newfoundland, and the extensive colonies which the English planted in these uncultivated wastes have, by agriculture and commerce, acquired a more durable power, and a fund of wealth more inexhaustible than all that Spain has reaped from the mines of Mexico and Peru. Cabot reports that he reached the 67th degree, and must therefore have been the first who penetrated into Davis's Strait. A century before this, in 1380, we read that Nicolas and Antonius Zeni, two noble Venetians, were carried by a storm from the coast of Iceland into the Deucaledonian Sea, and that in lat. 58°, between Iceland and Greenland, they discovered a large island inhabited by Christians, and covered with a hundred towns and villages, which was called *West Friesland*. Since that time, however, we have not a syllable of intel-

ligence which can give an air of truth to this story. Frobisher in his third voyage touched at a country in that latitude, and found the inhabitants similar in all respects to the Greenlanders, whence he justly concluded that it was a part of Greenland. Some persons however espouse the opinion, that this island has been swallowed up by an earthquake, and is the same with the *Sunken Land of Bus* marked on the charts, which is dreaded by seamen from the shallowness of the incumbent water and the furious dashing of the waves.

The ardour of discovery was now universally excited, as gold and silver mines were confidently expected in all newly found countries. The precious metals were also supposed to lurk in the unknown caverns of the north. In 1271, a strong north wind drifted a mass of ice and timber, with a few white bears to Iceland, whereupon the natives of that island concluded that there must be land to the north of Greenland; and what other could it be than the Colchis, from whence a Friesland armament in the time of King Olaus brought away mountains of gold, silver, and diamonds, though guarded by Saturn and his evil angels, or belike by cruel savages, and vessels were forthwith sent out to search for this country, but the ice forbade their approach. * The mountains of Greenland had likewise the credit of being rich in gold, for in the book of Job, ch. xxxvii. 22. it is written: "Gold cometh out of the north;" and Theophrastus Paracelsus has assured us of wealthier mines in that quarter than in the east.

Eric Walkendorf, Archbishop of Drontheim, in the reign of Christian II., was the first who seriously projected the renewal of an intercourse with Greenland, and a provision of teachers for the poor forsaken Christian colonists. He read all the writings which treated of Greenland, collected the observations of merchants and seamen who were acquainted with the northern seas, traced out a chart of the course thither, sought out persons who were willing to commence a trade, and found a colony there, and drew up a set of rules for their direction. But unhappily falling into disgrace with his

* Peyrere, l. c. p. 128.

prince, he banished himself in 1521 to Rome, where he died, and his benevolent plans were buried with him.

The affairs of Greenland were a subject of deliberation in the cabinet of Frederic I., but no active measures were set on foot. Christian III. disannulled the restriction of queen Margaret on the Greenland trade, leaving it free to all; and he even fitted out ships to search for the forgotten coast, though they were disappointed in their object. Frederic II. sent the famous navigator Magnus Henningsen thither in the year 1578. He, after much danger from storms and ice, succeeded in gaining sight of the land; but he was obliged to return, because, as he reported, the ship all at once stood still, and could not by any exertions be worked onwards, though it blew the best of gales, and there was an unfathomable depth of water. He attributed this mysterious obstruction to a sub-marine rock of loadstone; others affirmed that a *Remora* or sucking-fish had seized the vessel with its teeth and arrested its motion; but we may readily suppose, that the repulsive dread of the ice, or the magnetic influence of his native country, were the real agents in this business.

Two years before this, *Martin Frobisher* was commissioned by queen Elizabeth to endeavour to track out a north-west passage. On his voyage, he discovered part of the coast of Greenland, to which he gave the appellation of *Meta Incognita*, and the strait which bears his name. His traffic with the natives was unfortunate, as they took away from him a boat with five men. He was the first of the later navigators, who touched upon this coast. A kind of black stone, which he found, that contained a considerable quantity of gold, inflamed the appetite for discovery. He sailed thither again in the following year, but having sought in vain for the sailors he had lost, he seized upon two savages in retaliation, and returned with a heavy lading of black stones. In 1578, the queen sent him once more to this country with the command of a small fleet and one hundred men, with orders to establish a colony, and then proceed to the discovery of the north-

west passage. But he lost the ship which carried the building materials, nor could he find the Frobisher Strait again, and, after running into another strait, where he procured a considerable quantity of the black mineral earth, he returned to England. It remains ambiguous from his representation, whether he landed in Greenland, or Labrador, or Hudson's Bay, as neither the latitude nor the course he held are distinctly marked.

His description of the country, its inhabitants, and the intercourse he had with them, agrees very well with Greenland. But when we are told, that he found the natives a highly civilised race, whose king named Cakiunge was covered with gold and jewels, it must be taken for granted, either that his crew accommodated their story to the prevalent taste of the times, which required in every voyage of discovery a large proportion of gold and silver mountains, rich palaces, magnificent courts, and above all a whole shower of impossible adventures; or otherwise that his editors embellished his unadorned narrative from the ballads and romances then in vogue.

The attempts of Frobisher were succeded by those of John Davis, who in 1585, gained the latitude of 64° 15′, where he landed in Baal's River, and traded with the natives, whom he describes as a mild and peaceful people. In this and the two following years he examined the opposite coast of America up to lat. 70°, gave his name to the intermediate arm of the sea, and left behind him expectations of a north-west passage through it, which Button, Hudson, and Baffin, and many other English navigators as far down as the year 1747, have endeavoured, but in vain, to realise.

XI. The Danes were roused by the discoveries of Frobisher to renew their search for their lost Greenland. In the year 1605, Christian II., who was particularly active in the cause, sent out John Knight, an English seaman of long experience in the Greenland seas, and the Danish Admiral Godske Lindenow, with three ships. The Admiral anchored with his ship on the east side, but distrusting the savages, he only staid three days on the coast, bartering iron manufactures, looking-

glasses, and other articles for skins, and then seizing two of the natives returned homewards. Knight sailed with the two other ships to the west side, where he found inhabitants much more barbarous than those on the east coast; and sent a detachment of armed men on shore who discovered many green and fertile spots. The exhalations which rose out of the earth, led them to conclude that the ground was impregnated with sulphur; and they likewise found metallic stones which yielded twenty-six ounces of silver in a cwt. They made five savages prisoners, one of whom they were obliged to kill in order to terrify the rest into submission. They were said to have no similarity to those taken on the east coast, either in language, dress, or manners. Before his return Knight made a chart of the coast.

The king was so encouraged by the success of this expedition, that he again sent out the Admiral in the following year, and gave him the three Greenlanders as interpreters. May 8th, 1606, they embarked and cast anchor in Davis's Strait, August 3d. This time, however, the savages kept aloof. At another place, where they landed, the inhabitants shewed themselves prepared to repulse any attack; and at a third place, where they absolutely rejected all intercourse, one of the Admiral's people ventured on shore in hopes of conciliating them by presents. But no sooner had he set foot on land than they fell upon him with their wooden knives, and before he could receive any assistance, hacked him in pieces in revenge of the violence committed in the preceding year. The minds of the natives being thus exasperated, no hope could be entertained of accomplishing their object, and the squadron accordingly returned home.

The fate of the five Greenlanders who had been brought to Denmark in the first expedition, was a melancholy one. Though they met with the kindest treatment, and were well supplied with stock-fish and train, they frequently looked with wishful eyes and heart-breaking sobs towards the north. They at length

escaped to sea in their kajaks; but being driven back by a strong wind on to the coast of Schonen, and brought to Copenhagen, two of them died of grief. Two of the survivors again attempted flight, and only one of them was recovered. The latter was observed to weep most bitterly whenever he saw a child hanging on its mother's neck, whence it was supposed, for no one understood their language, that he had a wife and children in his native country. The remaining two lived ten or eleven years in Denmark, and were employed at Coldingen in the pearl-fishery, but were so rigourously tasked even in winter, that the one died and the other had recourse to flight; but being re-taken above an hundred miles from land, he likewise ended his days of chagrin.*

The king once more dispatched two ships to Greenland under Capt. Carsten Richardsen, but they could not make land on account of the ice. Christian now gave up Greenland in despair, but in 1619, the year after he had settled his establishment at Tranquebar, on the coast of Coromandel, he sent out Jens Munk with two ships, to discover a passage north of America to the East Indies, an attempt which, like all the preceding ones, proved abortive. Whether he touched on the west side of Greenland, or whether the Indians of Hudson's Bay are not meant by his Greenlanders, does not distinctly appear from the narrative. †

Notwithstanding these repeated failures, Greenland still continued to be an object of mercantile speculation. In the year 1636, a company of Copenhagen merchants, under the patronage of the chancellor Christian Früs, fitted out two vessels, which arrived in Davis's Strait, and traded with the natives. One of the sailors perceived on the beach a glittering kind of sand, which was of a golden colour and extremely heavy. The crew believed they had discovered another Ophir or Peru, and quickly filled both ships with it, but when examined on their

* See Note XVII. † See Note XVIII.

return at Copenhagen, it was pronounced to be nothing but sand. The chancellor ordered the whole load to be thrown into the sea. Not long after, a foreign artist succeeded in extracting genuine gold from a sand found in Norway perfectly similar; our adventurers repented of their ill-advised precipitance; but the captain was dead of vexation, and the place could not again be found. Two Greenlanders were likewise seized in this voyage, who being left alone on the deck, leaped into the sea, urged by love for their country, and were in all probability drowned. The crew also brought home with them the teeth or horns of the narwhal, so little known in that age, which sold at Copenhagen for 6000 rix-dollars a piece, and were bought at a still higher price in Russia, as the horns of the land unicorn.

In the reign of Frederick III. an. 1654, a merchant named Henry Muller, sent a ship to Greenland, under the command of David Nelles. He brought back three women from the west side. The Greenlanders still recollected the event at the arrival of the first missionary. The names of the women were Kunelik, Kabelau, and Sigokou.

The last unsuccessful voyage was made in 1670, by Otto Axelson at the command of Christian V., but we have no further information respecting it. In 1674, M. Tormohlen, councillor for commerce at Bergen, fitted out a ship with every thing requisite for the occupation of the country, as well as for making discoveries, but it was intercepted by the privateers and carried into Dunkirk.

Scarcely any one at length would believe, that there had ever existed a colony of Christian Norwegians in Greenland, and the fact would yet be disputed, did not the ruins of churches still extant there ascertain it beyond the possibility of doubt.

CHAPTER II.

ACCOUNT OF THE MISSION AT GODHAAB.

I. *Mr. Hans Egede, a Norwegian Clergyman, makes proposals for beginning a colony and mission in Greenland.* — II. *His troubles, resignation, and journey to Bergen.* — III. *His audience with the king, and his appointment as Missionary.* — IV. *His voyage to Greenland, and planting of the colony at Godhaab.* — V. *Conduct of the natives towards the Danes.* — VI. *State of the trade. The colonists desire to return, but at length receive support from Denmark.* VII. *Stay of the missionary among the natives. He begins to instruct them.* — VIII. *His attempts to find a more suitable place for the colony. Ruins of Norwegian houses.* — IX. *Arrival of Mr. Albert Top; vain endeavour to discover the East side.* — X. *Perilous, but fruitless voyage of discovery to the North Settlement of the Colony at Nepisene.* — XI. *Measures taken to instruct the Greenlanders; their dissimulation, &c.* — XII. *Two Greenland boys are sent to Copenhagen, and two others baptized. Greenland grammar.* — XIII. *The colony at Nepisene is forsaken and burnt. Treacherous design of the Greenlanders.* — XIV. *Want in the colony previous to the arrival of the ship.* — XV. *The Greenland trade is given up by the company at Bergen, and carried on by the king; Mr. Albert Top returns to Denmark.* — XVI. *Increasing docility of the Greenlanders; their want of sincerity.* — XVII. *Soldiers and others arrive in Greenland for the establishment of forts and colonies. The mutiny and mortality amongst them.* — XVIII. *Unsuccessful attempts to discover the East-side. Re-establishment of the colony at Nepisene.* — XIX. *Many Greenlanders withdraw from fear of the strangers. Mr. Egede resolves to baptize the children of the heathen.* — XX. *Scarcity of provisions, and attempts to cultivate the land.* — XXI. *All the colonists are recalled except Mr. Egede and his family. The colony at Nepisene is burnt down a second time.* — XXII. *The baptism of children is discontinued. Retreat of the Greenlanders.* — XXIII. *The trade improves. The discovery of the East side is again attempted in vain.* — XXIV. *Mr. Egede receives assurances of support. Arrival of the three first missionaries from Hernhuth.*

I. FROM the preceding narrative, we have seen that the Danes were very assiduous, during seven reigns, to search out and repossess this lost land of their ancestors. However, the attainment of a firm footing in

Greenland was reserved for the reign of Frederic the IVth., a prince distinguished for skill and resolution in all his undertakings. The person whom God had selected, and undoubtedly animated in a very particular manner for this purpose, was Mr. Hans Egede, a clergyman in priests' orders, belonging to the congregation at Vogen in the north part of Norway. The occasion of his devoting himself to the cause, the time, the trouble, and the means which this indefatigable man took to accomplish his aim, are so extraordinary and remarkable, that we presume it will not be disagreeable to those of our readers, who cannot refer to his own account,* to have a more circumstantial narrative of the transaction.

When this pious man had been rather more than a year in office, he recollected having read that christian inhabitants had formerly lived in Greenland, of whom all knowledge was lost. Mere curiosity, as he supposed, prompted him to seek for information concerning its present state, from a friend in Bergen, who had made several voyages in the whale-fishery. The answer of his correspondent awakened in him a cordial sympathy for the poor abandoned Norwegians, who, probably for want of teachers, had sunk into paganism. It appeared to him to be the duty of every philanthropic Norwegian, to search out his forlorn countrymen, and publish to them the glad tidings of the gospel. His thoughts were continually at work in devising measures to execute this laudable design; and at last the desire grew imperceptibly upon him, to engage in the work himself. But here innumerable difficulties arose to damp his ardour. It appeared neither allowable nor practicable to forsake his charge, especially since a wife, children, and several near relations, depended upon him for sustenance. Yet when he endeavoured to shake all thoughts of Greenland out of his mind, he grew so uneasy, that he knew not where to turn for rest, being on the one hand urged on by an inward impulse to proceed in the work, and on the other, intimidated by the difficulty and danger at-

* Relation von der Grönlandischen Missions Anfang und Fortsetzung.

tending it, added to an extreme diffidence and the fear of being charged with presumption.

He at last determined to make an humble proposal for the conversion of the Greenlanders, by some other qualified person, more suitably circumstanced than himself, grounding it on the scripture promise of the conversion of the heathen world, the special command of Christ, the example of the primitive church, and the pious wishes of many learned friends.

Still his timidity reminded him that proposals for a work of such importance would be little regarded from so insignificant a person; and that his plan could scarcely be executed during a war with Sweden, and the scarcity of money occasioned by it. At last, however, he ventured to forward his memorial in the year 1710, with a petitionary letter to Randulph, bishop of Bergen, the principal emporium of the Greenland trade; and another to Bishop Krog of Drontheim, to whose diocese he belonged, entreating them to give the most efficacious support at court to his plans for the conversion of the Greenlanders. Both bishops answered him in the next year, praised his humane intention, and promised to do their utmost in its favor; enumerating on the one hand the difficulties which attended it, and on the other the advantages which might accrue from it to their country in particular.

II. Hitherto his plans had lain in embryo within his own breast; but this epistolary correspondence quickly gave them notoriety, and his friends set up a vehement opposition against them, instigating his wife and family to endeavour to divert him, by every means in their power, from such a preposterous enterprize. Their tears and remonstrances effected so much, that he really tried to banish all further thoughts concerning it from his mind, considering that he had done his best, and could not accomplish impossibilities. But the words of his heavenly Master: "Whosoever loveth father or mother more than me, is not worthy of me," renewed the conflict in his mind, so that he had no rest day or night, and was incapable of receiving comfort. Meanwhile, as if by a

peculiar dispensation of Providence, a series of troubles and persecutions disgusted his wife with her present situation. Now, thought Mr. Egede, is the time to press the matter. He admonished her not to regard these dispensations superficially, but as the means of animating her to a more resolute self-denial for Christ's sake. This exhortation produced a due effect; she laid the matter before God in prayer, and received the conviction that she should not oppose, but co-operate with her husband in his seemingly strange undertaking. Mr. Egede's joy was now complete; believing that he had vanquished every obstacle, he immediately drew up a memorial addressed to the worthy college of missions, and intreated the bishops of Bergen and Drontheim to promote his request with the utmost assiduity. They, however, thought proper to recommend patience till the times were more peaceful and favourable.

In this manner his project was not only postponed from year to year, but assailed with all kinds of reproach. In the year 1715, he thought it necessary to draw up a vindication of his conduct, entitled; "A scriptural and rational solution and explanation of the difficulties and objections raised against the design of converting the heathen Greenlanders."* But still the world strove to divert him from his purpose, not only by urging the miseries attendant upon a residence in that frigid, inhospitable climate, the dangers of the voyage, the madness of relinquishing a certain for an uncertain livelihood, the cruelty of endangering the lives of his wife and children; but what was worse, they reproached him with sinister views, with endeavouring to hide under the cloak of religious motives, the desire to aggrandize his reputation, and did not even blush to assert, though in manifest contradiction of their own words, that he aimed at temporal emolument, being discontented with his income.

* Schriftmässige und vernunftige Resolution und Erklärung über die Objectionen und Verhinderungen, der Versatz, die Heidnische Groenlander du bekehren, betreffend.

Mr. Egede tired out with delays, and having reason to believe that his memorial was not properly supported, determined at last to go to the fountain-head, and prosecute the affair in person. Accordingly, he acquainted his bishop, by letter, with his intention of resigning his office, provided that he received an annual pension from his successor, till he was settled in Greenland or in some other situation. But as no one would accept his place upon these terms, he resigned his office unconditionally, in the year 1718, with the previous consent of the bishop. When he came to take leave of a congregation which he loved, of many dear friends and near relations, he was almost overpowered, and strange as it may appear, his wife instead of relaxing in the trying scene, now animated her husband to unyielding perseverance.

Meanwhile, a report was spread, that a ship from Bergen had been wrecked on the ice near the coast of Greenland, and that the crew who had escaped to the shore in a boat, had been butchered and devoured by the savages. Neither was this alarming news altogether groundless; yet it could not deter him nor the steadfast heroine his wife, from prosecuting their journey with their four small children to Bergen, preparatory to their sailing for a country which was the scene of such dreadful disasters.

III. At Bergen, he was an object of general curiosity. Most men regarded him as a fanatic, who had deserted his proper calling, confiding in dreams and revelations, to wander up and down the world like a knight-errant. Some few sensible people listened to his proposals for renewing the commerce with Greenland. But as the Greenland trade from Bergen had been ruined by the intrusion of so many other nations, no one was inclined to renew it; at least, as long as the war with Sweden continued. Fortunately, just then the sudden death of Charles the XIIth, gave hopes of the speedy restoration of peace. Mr. Egede embraced the favourable crisis, repaired to Copenhagen, presented his memorial to the college of missions, and received

the joyful answer, that the king would consider of some means to accomplish this sacred work. His Majesty even honoured him with a private interview and an attentive hearing of his proposals. He then returned with a cheerful mind to Bergen.

Nov. 17th, 1719, a royal mandate was transmitted to the magistrates at Bergen, requiring them to collect the opinions of all who had been in Davis's Strait, concerning the Greenland trade, and the establishment of a colony there, with a statement of the privileges which might be desired by the adventurers. But alas, no one had any inclination for such a project. They all concurred in describing the voyage as so perilous, and the country so disagreeable, that Mr. Egede and his schemes became the common butt of mockery and scandal. But what he found could not be effected by the sovereign's mandate to the people at large, he endeavoured to bring about privately and gradually by his own exertions among individual merchants. Some of them were at last prevailed upon to furnish a small capital, and one of the principal merchants in Hamburgh offered to aid the association with a considerable sum. But as the latter soon repented of his kindness, and the requested privileges were not approved of by the king, no one would hear a word about Greenland any more, and the worthy man saw his unwearied assiduity rewarded by derision and contempt.

Thus another year passed away in fruitless labour. Meanwhile, Mr. Egede's courage seemed only heightened by difficulties and opposition. He continued to importune the throne with his humble petitions, repeated his representations to the college of missions, and his exhortations to the merchants in favour of his undertaking. At last some rational men, deeply affected by his indefatigable zeal, consented to a conference, in which they suffered themselves to be prevailed upon by his remonstrances, tears, and entreaties that they would do something for the good of their country and the glory of God, to subscribe each of them about forty pounds, towards forming a capital Mr. Egede, himself setting

an example by contributing sixty pounds. He immediately drew up an instrument, which he presented to the bishop and all the clergymen in the city, whose additional contributions increased the capital to about two thousand pounds. With this sum, though still inadequate to the occasion, a ship was bought, called the Hope, to carry him to Greenland, and winter there. Besides, two other ships were freighted, one for the whale-fishery, and the other to bring back an account of the newly-established colony. In the spring of 1721, a joyful message arrived from the college of missions, stating that the king had graciously approved of the undertaking, and appointed Mr. Egede minister and missionary in the new colony, with the yearly salary of sixty pounds, besides a present of one hundred pounds for his immediate equipment. Thus this unwearied servant of God, after labouring for ten years with exemplary fortitude, opposed by numberless obstacles, at last obtained his object, namely, the toilsome and perilous post of a missionary among the heathen. Far from aiming at opulence or honours, he relinquished an excellent situation with no other intention but to offer up his life in the cause of his master.

IV. On May 2d, 1721, he went on board the Hope with his wife and four small children, and was presented to the crew, consisting of about forty persons, as the principal of the colony. On the 12th of May the ship sailed. On the 4th of June, they passed Staatenhuk, but had afterwards to encounter so many storms, and such vast quantities of ice, that there seemed no possibility of proceeding, and the captain began to think of returning home. On the 24th of June, they descried an opening, and ventured into it, but soon perceived that the ice extended without any farther break to the shore.

They therefore made an attempt to get out again to the open sea, but the wind blew so violently against them, that one of the ships was driven on the ice and sprung a leak, which the crew were forced to stop up with their clothes. Every thing seemed to hasten the destruction of the vessel by its being shattered against the

ice, and the captain admonished them to prepare for death. To add to their misfortunes, about midnight, a thick fog prevented them from seeing to any distance before them. Yet, to the astonishment of all, when the fog was dissipated shortly after midnight, the sea was so clear, that they could scarcely conceive how their situation could have been so dangerous. The storm which threatened their destruction, veiling its operations under the mist, had accomplished their deliverance. At last they made the shore, July 3d, at Baal's River, lat. 64°. They immediately built a house of stone and earth, lined with boards, on an island near *Kangek*, which they called after the ship, *Haabets-Oe*, i. e. *Hope Island*, August 3d, they entered it after a thanksgiving sermon on Psalm cxvii. The ship designed for the whale-fishery had sailed from Bergen before them, but was overset near Staatenhuk, where there are frequent storms and a rapid current: however, she righted again without loss of lives, and was driven by a favorable wind, though without masts, to the coast of Norway.

V. The Greenlanders at first shewed a pacific disposition towards their new guests, and expressed great surprise that women and children came with them. But as soon as they perceived from the preparations for building, that the Europeans did not intend only a short trading visit, but a permanent settlement, they left the surrounding district out of fear, and would never receive any visits from the strangers. By degrees, however, they were encouraged by presents and kind treatment to entertain those who went to see them; yet, at first, they never admitted Europeans into their dwellings, but prepared a separate house for their reception, till, gradually emboldened by custom, they ventured to receive them into their houses, and even sometimes to return their visits.

Mr. Egede availed himself of every opportunity to learn their language, and as soon as he got to know the meaning of the word *Kina; what is this?* he enquired the name of every object he saw, and committed it to paper. Having once observed that a Greenlander

named Arok, had conceived a peculiar affection for one of his people, called Aaron, on account of the similarity of their names, he took occasion to leave this man (with his consent) secretly among the Greenlanders, that he might learn their language, and inquire into the circumstances of the country. They, indeed, called him back, and gave him to understand that he had left a man behind; but he eluded all farther importunity by feigning absolute inattention. For a few days, the natives brought word, that Aaron was well, but requested that some one might fetch him away, as his residence among them excited suspicion. They were however, prevailed upon to suffer him to spend the winter with them. Being irritated by their continual attempts at insult and robbery, he once endeavoured to reform them by blows, and was, in return, abused and severely beaten. They also took away his gun that he might do them no mischief with it, but afterwards endeavoured to soothe him by friendly treatment, requesting him not to inform the priest, that they might escape punishment. Mr. Egede pretended complete ignorance of the affair, and at his next visit left another of his company among them. They were in general very much afraid of the missionary, and many an Angekok exhausted his spells upon him and his people, in order to do them mischief, and oblige them to withdraw. Seeing, however, that their sorceries availed nothing, that they gave out the minister was himself a great, but beneficent Angekok, who harboured no evil intentions against them. This opinion was readily received by the more ingenuous among the natives, because they saw how he discoursed to his own people, and how they all treated him with the greatest respect.

Meanwhile, the attempts of this good man to instruct these poor people in divine things, were very much obstructed by the difficulty of conversing with them. He therefore got his eldest son to draw some pictures from the bible history, and hold them before them, which not only enabled them more readily to comprehend his meaning, but furnished him with an opportunity both to learn their language, and to acquaint them with the principles

of christian doctrine. It was observed, that the description of the resurrection, and of the miracles of Christ, particularly his healing the sick, and raising the dead, found the quickest entrance into their minds. As they regarded Mr. Egede as the ambassador of such a mighty and beneficent God, they desired him to cure the sick, according to the manner of their angekoks, by blowing upon them. Such tokens of their esteem and confidence were embraced as opportunities of instruction, and of leading them to regard God as the author and donor of every blessing. His doctrine, as far as it was understood, presently began to find acceptance. The number continually increased of such as were willing to hear of Him, who created heaven and earth, and accomplished such wondrous works; and when the missionary went out to reconnoitre the country, he was cheerfully entertained and waited upon, especially after the recovery of some sick persons, with whom he had prayed, after having admonished them to acknowledge and invoke the true God.

VI. The trade made but small progress in the beginning. The Greenlanders had little to part with, and they did not choose to give the remnants of their winter provision in barter to the Danes, having been accustomed for many years to dispose of them to the Dutch, who knew the commodities that would go off in Greenland, and could afford them better bargains. In the spring, several Dutch vessels passed Godhaab and the colonists saw, to their great mortification, that one of them which ran into the harbour, bought more in half an hour than they could procure during the whole winter.

Even their necessary sustenance began to fail. Owing to their exaggerated idea of the productiveness of the Greenland fishery, they had provided themselves with but little fish or salt provisions: and, if we take into consideration their slight acquaintance with the country, the shyness of the hares and reindeer, and the want of suitable fishing tackle; it is not surprising that they began to be pinched with want the first year, and that many were attacked by the scurvy. Loud murmurs, owing principally to their disappointment at the non-

arrival of the store-ship, arose against the minister for leading them to such an inhospitable desert; and they all determined to forsake the country at the departure of the ship that wintered in Godhaab. These proceedings, as may be easily imagined, threw Mr. Egede into the greatest perplexity. His conscience would not suffer him to desert a post which had been obtained by the assiduous exertions of many years, and where he had an animating prospect of accomplishing the conversion of a heathen nation. Yet he could not remain alone with a wife and four small children, and see them perish before his eyes. All that he could obtain from his people was, to wait till June for the arrival of the ship, with a promise, that should it not come then, and their resolution remain fixed, they would leave him part of their provisions. He also prevailed upon six men to stay with him in the country upon these conditions; but when these six saw that the stores left to him would scarcely suffice for half a year, they gave him to understand that in case of need they intended to take refuge in a Dutch ship and sail home. He was, therefore, constrained, though with a heavy heart, to make up his mind to return in the same ship that brought him to Greenland. But his wife withstood his intentions with such firmness as re-animated his expiring courage, and put his incredulity to the blush. She not only refused to pack any thing up, but reprimanded those who began to demolish their habitations, admonishing them not to put themselves to unnecessary trouble, as she had a clear conviction that a ship was sent out and would soon arrive. They laughed at the new prophetess; but on the 27th of June they were put to shame, by the safe and most welcome arrival of the ship. Mr. Egede also received the encouraging accounts from the Bergen merchants, that they were determined to prosecute the trade, notwithstanding its unpromising aspect. A message from the worthy college of missions informed him, that it was the king's gracious pleasure to support the mission to the utmost of his power; for which purpose he had ordered a lottery in favour of the Greenland

mission and commerce to be established; but, as this did not succeed, a handsome sum had been collected by a moderate tax laid on every subject in Denmark and Norway, under the name of the Greenland assessment.*

VII. Encouraged by these joyful tidings, Mr. Egede resolved to spare no trouble for the conversion of the heathen, and the speedy discovery and cultivation of the country. For this purpose he and his two little sons took up their abode for a time among the Greenlanders in the winter of 1722, though they were exceedingly incommoded by the stench and vermin. His aim in so doing was to gain some knowledge of the country, and also to initiate his sons into the language, by their intercourse with Greenland children.

Two orphan boys were induced by presents to live with him constantly. A family of six persons also begged permission to reside with him during the winter. It was very apparent that these people only came for a livelihood, and he had not much room for them: besides he had already more visits from the Greenlanders than he liked, as their motives in coming to his house were evidently curiosity and covetousness. However, upon second thoughts he resolved to take in this family, in hopes that he might effect some improvement upon their children, and that they would facilitate his acquirement of the language. But as soon as the severity of the winter was over, and they had an opportunity of getting something at sea, these people took their leave. And the two boys, who had engaged to live with him constantly, stole away one after the other, so that the trouble and expense bestowed upon them were all in vain. He had attempted to habituate these young people to a settled way of living, to instil into them the doctrines of Christianity, and also to instruct them in reading and writing; but he soon found himself obliged to give them leave to go to sea, or to visit the savages, according to their inclination. At first their progress

* Holbergs Dannemarks og Norges geistliche og verdslige Staat. p. 351.

in learning was rapid, because they had a fishing-hook, or some other trifle given them for every letter they learned. But they were soon satiated with this employment, and said, that they knew not what advantage could arise from sitting all day long, looking at a piece of paper and crying a, b, c, &c., that he and the merchants were worthless people, because they did nothing all day long but look in a book or scrawl with a feather: that, on the contrary, the Greenlanders were brave men; they could hunt seals and shoot birds, from which they reaped both profit and enjoyment. Mr. Egede took great pains to explain the advantages of reading and writing, by telling them that these arts enabled us to know the thoughts of an absent friend, and above all to learn the will of God from the Bible. But this did not interest them so much as temporal benefits; and as soon as they thought they had got a sufficiency of these, they sneaked off without telling him their intention.

VIII. Meanwhile great pains were taken to search out the country. The missionary sent out his people at different times to discover the best places for hunting and fishing, the method of which they gradually acquired; he also busied himself in finding out a more suitable place for the colony on the main land, where they might cultivate the soil. He found a fine creek, where there was great abundance of grass and brushwood, a salmon-brook, and excellent pasturage. It was called Priester-fiorde. Here for some time they dug stones and made preparations to remove the colony thither, but were obliged to desist, because the seamen found the entrance too long and dangerous.

In the year 1723, he made two expeditions to the Amaralik bay, to see the ruins of old Norwegian buildings, and find out a better spot for the colony. With the same view he examined all the coves in his neighbourhood, and twice ascended up Baal's River, in order to ascertain whether the report of the Greenlanders was correct, that seals might be found lying upon the ice, and killed by hundreds. He saw them indeed lying upon the ice, but could not surprise them. On his second

tour to Baal's River, he found in a beautiful valley a decayed quadrangular building, about six yards square and four high, containing a door-way. It was supposed to be a church tower, for at a small distance were seen a parcel of ruins thirty-two yards long and twenty-four broad, but only two feet high, of which the foundations were entirely different from the masonry of the Greenlanders. Many lesser houses were met with, and the ground was entirely overgrown with grass, and thickets of birch, willows, elder, and juniper. But the prospect on the land side formed a dismal contrast to this pleasant valley, being only a frightful waste of ice, stretching as far as the eye could reach.

IX. In the same year three ships were fitted out for Greenland. By one of these, freighted with provisions for the colony, Mr. Egede not only received the joyful accounts which gave hopes of the furtherance of the work, but also Mr. Albert Top, as his colleague. The second ship was fitted out for the whale-fishery, and returned to Bergen the next year with about one hundred and twenty barrels of blubber from one whale. This together with the whalebone was valued at 540*l*. The third ship was to have reconnoitred the strait, but she neither arrived there nor returned, being in all probability cast away near Staatenhuk, where she parted company in a storm. Just before this, the crew of a Dutch ship, who had saved themselves in two long boats, came half starved to the colony.

Shortly after, the missionary received an order to send some resolute sailors on a voyage of discovery to the east coast of Greenland. Being concerned to see the commission faithfully executed, he set out himself with two shallops on this difficult and dangerous voyage, although the summer months were nearly elapsed, in hopes of finding a shorter way through the Strait of Frobisher, to the east-side. According to his account, they found in lat. 62°, where the strait was marked on the charts, an inlet four leagues broad; but it was so beset with floating ice, driven into it by the north wind, that there was no

possibility of entering. They at first intended to wait till the ice moved off to sea, and left an opening; but hearing from the Greenlanders that the ice did not drive from the east into the sea, but from the sea towards the land, they gave up all idea of attempting a passage there. Embracing, therefore, the opportunity of a small opening made by the wind in the ice, they sailed through it with much danger; and passing Cape Comfort, in lat. 61°, were conducted by a Greenland pilot eight leagues between rocks and islands to a sound, where they expected to find a passage; but it joined the ocean again towards the south-west. Nothing like a passage was afterwards seen till they came to lat 60°, in the neighbourhood of Staatenhuk. The missionary had sufficient fortitude to venture through the sound which separates Cape Farewell from the main land; but, as the Greenlanders represented to him the length of the way, the frequent storms in those seas, the strong currents that set against them there in the winter, the quantities of ice, and the cruelty of the inhabitants on the east-coast, he was obliged to conform to the wishes of his boatmen, who had made no provision for the winter, and thought of steering their course home again. They had been a hundred leagues and upwards in fifteen days; and were nineteen days on their return.

In their voyage both going and coming, the Greenlanders pointed out many fiordes, where ruins of old Norwegian buildings, fine pasturage, and brushwood, were to be found; but they had not leisure to inspect all of them. In one place, called by the Greenlanders, Kakoktok, lying between lat. 60° and 61°, they met with the ruins of a church fifty feet long, and twenty broad; the walls were six feet thick, and it had two doors, one towards the south, and another very large one on the west side. There was only one window on the north side, but four large ones facing the south. The walls were artfully composed, but without images; and those of the church-yard were still standing. There was one long house, and several smaller ones near it. Mr. Egede got the Greenlanders to clear away a heap

of rubbish from about the church, in hopes of finding some Norwegian antiquities; but for want of proper tools, nothing could be obtained but a few coals, bones, and fragments of earthern urns. At first the superstitious people would not consent to engage in the work lest the souls of the foreigners interred there, should be disturbed and retaliate the injury.

On their return they found upon an island sixteen leagues from Godhaab, a yellow earth with veins of vermilion, some of which Mr. Egede sent to Bergen. He was afterwards informed that good use might be made of it, and was desired to send a cargo to Europe; but upon setting out a second time to search for the place, he got so bewildered among a multitude of islands that he could not find it.

In the beginning of this expedition, the Greenlanders would not trust the Danes, and put themselves in a posture of defence; but when they understood from the Greenland pilot, that the priest, or as they called him, the great Angekok of the Kablunæt, was in the company, they received them with singing and shouts of joy, and accompanied them from place to place. Nay, their confidence went so far, that they conducted the missionary to a grave, beseeching him to raise the corpse which it contained, because they had heard so much of the wonderful works of the Son of God, and the future resurrection. They also seemed to believe that his invocation and prayer would heal the diseased, as they once brought him a blind man, whom he was requested to cure by touching his eyes. After a preparatory address, and an injunction to believe in the Son of God, Mr. Egede rubbed his eyes with spirits, and left him. Thirteen years after, the same man came to the colony, and thanked the missionary for having opened his eyes.

In the November after this voyage of discovery, he went to Pissubik, ten leagues north of the colony, in order to ascertain whether whales might be caught there. None were found but fin-fish, which are exceedingly dangerous, and have little blubber. But as he under-

stood from the Greenlanders, that a hundred leagues north of the colony, the Greenland whale might be caught in February and March, he undertook a voyage thither in 1724, with two shallops, though many were of opinion that it would be impossible to reach the place so early in the season. They toiled through the ice as far as lat. 65°, and were only twenty leagues from Nepisene, the place of their destination. But after having waited there several days, in expectation that the wind would scatter the ice, they were forced to turn back, and were thankful that they reached home in safety, after having spent a month of excessive fatigue and continual exposure to the piercing cold, in an extraordinarily rigorous season. On their return, there was one sound, through which they should pass, which was so completely blocked up, that they were forced to make a circuit round the islands, and venture out into the open sea, where they were assailed on every side by immense fields of ice, stretching further than the eye could reach. The Greenlanders, represented to them the danger of sailing through this ice, but there was no alternative; and as the pilot kept back from timidity, they forcibly dragged him on board, and fortunately succeeded in gaining a passage. During this voyage they found that whales abound at Nepisene in February and March, but proceed further north to Disko in April, and from thence westward to the American coast.

Two ships came from Norway this year. One of them was to have traded along the coast, as high as Disko, but could only land at two places, and even there got but little, because the Dutch had already bought up the best of the goods. The other was destined to explore the American coast between lat. 66° and 67°, where the strait is narrowest, and to bring in a cargo of wood to Greenland, for erecting a new colony. But they returned again in July without having been able to land any where on account of the ice. On their return, they took a view of Nepisene, and soon after the vessel sailed thither with the mis-

sionary Albert Top, twenty other persons, a Greenland boy, and a quantity of materials on board, to begin the second colony. Besides these two ships, the company by the king's order, sent another to explore the east coast of Greenland opposite to Iceland. But ice and storms obliged it to return again without effecting any thing.

This year the factor got his people to blow up a rock in Amaralik bay, in hopes of finding some metallic ore; nothing however was found, but brimstone pebbles. Both in this place and Priester Fiorde, Mr. Egede caused the long grass to be set on fire, in order to thaw the frozen earth, and then sowed some corn for a trial. It grew very well till it was in ear; but in September they were obliged to cut it down unripe, owing to the severe night frosts.

From these labours, we see how busily Mr. Egede was engaged in caring for the good of the colony, the superintendance of which he had accepted from the company. This was the cause, as he writes himself, why he was induced to intermeddle in affairs that might seem foreign to the pastoral office. This also was the reason of his undertaking so many toilsome and dangerous journies, at the hazard of his life, thus leaving his successors a bright example how to fulfil their duty, and to use their personal exertions for the promotion of the company's interest; being sensible, that his expections of support in his grand object, the conversion of the savages, rested entirely upon the supposition of some considerable mercantile advantage.

XI. With respect to the mission, the arrival of a colleague encouraged him to renewed zeal in the instruction of the Greenlanders. He had translated, as well as he could in this intricate language, some prayers and hymns; also some short questions and answers relative to the Fall, Creation, Redemption, Resurrection, and Judgment-day. These were frequently read to the natives, till, by hearing them often, they learned to repeat the answers; and also got a clearer insight into the subjects treated of.

At first they listened willingly, but too frequent repetition excited disinclination to attend, especially if the reading interfered with some intended diversion or hunting excursion. If an Angekok was present, and wished to practise his incantations, no devotion was to be thought of; for, if the missionaries persisted in reading, they were only mocked and ridiculed by burlesque mimicry. They were even sometimes openly reproached with lying, because the Angekoks, who had been in heaven, had seen no Son of God there, nor had found the firmanent so out of repair as to be in danger of a dissolution. To remedy this disorder, the Danes attempted to use violent means, drove the Angekoks away, and stationed sailors among the natives to enforce decorum. When these measures proved unavailing, they threatened to introduce armed men among them, who would punish their sorcerers with death as impostors and seducers, and reduce the rest to complete subordination.

At last, after much trouble and many expostulations both of a friendly and threatening nature, the missionaries effected so much, that the Greenlanders heard their reading patiently. At least, they no more treated it with insolent mockery, or beat their drums during the singing. When the teacher now went to one of their assemblies for merriment, they did not all immediately disperse, provided that their mirth was not suddenly quelled, but stopped awhile to listen; nay, some declared, that they believed every thing that they were told about God, because they had frequently invoked him with success to be propitious to their seal catching. If they laboured under any disease, they generally sent for Mr. Egede, and requested him to pray with the sick persons that they might be cured. Once even an Angekok who had a sick child applied to him for assistance. The missionary, after reproving him for his impostures, assured him that the child would die, as it was apparently just expiring; but that if he would call upon God and suffer it to be baptized, it might still be happy in Heaven. The man assented to all that

was required, and earnestly entreated Mr. Egede to baptize his child, which the latter immediately did, calling upon the name of the Lord. The infant died directly after the ceremony, and when the family had, in conformity to their customs, filled the air for some time witn dismal howling, the missionary was urged to carry the corpse to the grave, because no one else was thought worthy by the father. After the interment the man and his wife desired to be baptized also: their request was of course not granted, and they were informed, that they, being adults, must first come to the knowledge of the truth.

The doctrine of the immortality of the soul was in general much liked by the Greenlanders. They also rejoiced to hear, that it would after the resurrection be reunited to the body, which would be no more subject to disease, and that friends and relations should meet again in another world. They indeed became curious to hear all that was told them of spiritual things, a circumstance which strengthened Mr. Egede's hopes exceedingly. However, when a subject had been explained to them several times, and they could not take it in, they became weary, and wished to hear something new, imagining that they already believed all that had been told them. They were often displeased and petulant in unfavourable weather, and attributed it to the irritation of the air, occasioned by reading and prayer; or they imputed it to their belief in the missionary's tales, and their non-conformity to the advice of the Angekoks, who prescribed abstinence from certain meats and employments. Upon being requested to pray, their answer sometimes was: "We do pray, but it signifies nothing." When told that they should supplicate God chiefly for spiritual gifts, and for the bliss of life eternal, they replied: "This we neither understand nor desire; we only want healthy bodies, and seals to eat, and the angekoks can procure these for us." If future judgement and the eternal torments of hell were mentioned, they refused to hear any thing about them; or replied, that their angekoks

had more knowledge of hell than the missionary, adding that if it was indeed so hot, there was water enough in the sea to quench it, and that at any rate it would make amends for the cold they had endured on earth. When Mr. Egede endeavoured to convince them of the impositions of the angekoks, asking them if they had ever seen an angekok going to heaven or hell, as these impostors always chose darkness to veil their legerdemain, they retorted the inquiry, by asking if he had ever seen that God of whom he talked so much? In short, it was extremely difficult to remove their mistaken conceptions, and to prevent them from making quite a sinister use of every truth they heard; for instance, of the consolatory assurance that God was omnipresent, omnipotent, and benign, ever ready to assist all those who call upon him in distress. The doctrine of the natural corruption of the soul and its restoration, was entirely unintelligible to them.

Two families had spent the winter in the houses belonging to the mission. These people had taken in some articles of Christian doctrine, could answer several questions, and would readily have submitted to baptism, if the missionary had been eager to confer this blessing upon such as had no notion of any other benefits to be derived from it than better treatment and the sponsor's presents. He could discover in them no symptoms of a change of heart, nor even any religious emotions whatever, and was forced to let them go away as insensible as they came.

XII. Two boys were persuaded to stay in the colony, and shortly after were sent in a ship to Copenhagen, that at their return they might give their countrymen a clearer notion of Denmark and of European manners than could be acquired from the conversation of foreigners.

The next year, 1725, one of these Greenlanders, called *Pock*, returned to Greenland. His companion died at Bergen on the journey back. The accounts which the former gave the Greenlanders of the kingdom of Denmark, of the royal family, to whom he was presented, of the splendour of the court, the stately churches and other magnifi-

cent edifices, and above all of the many tokens of kindness shewn to him, excited great amazement among them; and the presents he brought with him raised a wish in many to undertake the same voyage. The description of the courtly grandeur and military power of the king awakened new reflections in the minds of men, who had always been accustomed to regard as the mightiest and wealthiest lord, him who could catch most seals. These reflections assisted them to form some idea, though of a terrifying nature, concerning God, as the supreme Lord of lords, and King of kings; especially when they heard that the Danish monarch, amidst all his unbounded might, hearkened to the voice of his pastors, though they were his own subjects, when they declared to him the will of the Almighty. *

But, however Poek might be pleased with Europe, he presently relapsed into his former way of life, and resolved to move towards the south with a woman belonging to the colony. After many expostulations he was induced to remain, and to marry a Greenland woman living in the colony, who, however, was not easily persuaded to take a man for her husband that had degraded himself by his outlandish way of living. †

The missionary meanwhile had with much difficulty procured two other boys from the Greenlanders, but the parents soon wanted to fetch them away, for they can scarcely live a day without their children. He, however, by presents and kind representations, prevailed upon them to let their sons stay for some time; telling them that their children must first learn something before they could instruct others. One of these boys was baptized shortly before his death, and Mr. Egede's colleague took the other with him to Nepisene, where he was baptized by the name of Frederic Christian.

The language gave Mr. Egede infinite trouble; as he

* Professor Egede wrote down some of these sentiments in a Greenland dialogue between Poek and his countrymen, and another between a missionary and an angekok, at the end of his Greenland Grammar.

† See *Anderson's Account of Greenland*, p. 275.

was continually obliged to desist from the use of phrases which he imagined he had perfectly understood but a week before. However his children learned it more easily and fundamentally, especially as to the pronunciation, and could generally give him a solution to his queries. With their assistance he proceeded so far as to begin a Greenlandic grammar, and to translate some Sunday lessons out of the gospels, together with a few short questions and illustrations. He also made use of his eldest son as an assistant in instructing the Greenlanders, since he could make himself more intelligible, and in all respects more agreeable to them.

XIII. By the two ships that arrived this year from Bergen they received the joyful assurance that there was not only a zealous intention of pursuing the work, but also of supporting it with a sum of 10,000*l.*, to be raised by assessment. One of these ships was destined to trade on its return southwards, and the other to proceed northwards to the new colony at Nepisene. Mr. Egede had visited that place in April, and found that though in consequence of the severe weather, little had been done, either by the colonists or the Greenlanders, the former were in good health. His feelings were therefore much hurt, at seeing the ship which went to Nepisene return in June, not only with another ship that wintered there, but with all the colonists on board, who had left the place upon the pretence that they had not provisions sufficient for a whole year. Thus the houses which had been erected at so much expense stood tenantless, and not long after news came that they had been burnt down by foreign traders.

Mr. Egede also sought out a place conveniently situated for hunting and fishing, near twenty leagues north of Godhaab, and intended to transplant the colony from Baal's River thither. He afterwards sailed twice to the spot, and even began to collect stones for building; but as timber could not be procured without much difficulty, the undertaking was deferred, and at last entirely relinquished.

On one of these voyages he was attacked by a Green-

lander for the following reason; the year before some Europeans had torn off the amulets from his child: this circumstance brought on a bitter dispute, in which the man maintained that the Torngarsuk of the Greenlanders was no malignant demon, as the missionaries described him to be, but a good spirit; and affirmed that he would not believe that there was a God in heaven, till they gave him ocular demonstration of his existence. He now took the opportunity to retaliate with some insolent language. He was repaid with a few blows, though without the missionary's consent; and, as he began to defend himself, was at last severely beaten.

Another affair of the same kind had very nearly led to more serious consequences. The factor, while on a voyage to the south, was indiscreet enough to strike an angekok in a passion, who was practising his magic to hurt him and his people. The angekok immediately seized his bow and arrows, and the factor was glad to avail himself of his gun, though it was unloaded, to terrify the Greenlanders, who restrained their almost frantic countrymen from commiting farther violence. Yet the matter did not rest here. A Greenlander is an adept at concealing his passions, but can never subdue them. The same angekok framed the bloody plot of murdering the factor's assistant when he came to trade with the natives of the south. He also represented to his followers that now was the fittest opportunity, while the factor was in the north with most of his people, to fall upon the minister and the few Europeans left with him; that the merchant might be easily slain on his return, and the goods found in the colony divided amongst them. This conspiracy was fortunately discovered to Mr. Egede by a Greenland boy, who had run away from him, but had returned voluntarily, lest he might be forcibly taken and punished. A watch was according appointed to patrole the settlement till the return of the factor, who went to the abode of the Greenlanders, and ordered the author of these cruel machinations to be taken pri-

sooner. He was, however, shortly after set at liberty by the entreaties of his countrymen, who promised to keep the peace in future.

Mr. Egede was not a little disquieted at the protracted absence of the assistant; yet he also returned safe, with the account that the Greenlanders had given him repeated warnings not to have any intercourse with the natives of the south.

XIV. No sooner were their fears dissipated on the score of the conspiracy, than apprehensions of another kind filled them with still greater consternation. In June, the wreck of a ship was observed among vast quantities of ice driving near the coast. They of course conjectured this to be no other than the ship expected from Norway; and as they had consequently no dependence on provisions for this year, Mr. Egede resolved to go with two shallops, a hundred leagues northward to South-bay, the rendezvous of the Dutch whalers, and buy provisions there: but they could afford him but a very small quantity, not intending to steer their course directly home, but first to visit the American coast to catch whales. He, however, agreed with the master of one of the ships to take the factor and nine men with him to Europe, and call at the colony on his return from America, to take in the merchandize. In the interval, all possible frugality was enforced at Godhaab. There were still twenty one souls residing there, and these, including what they had got from the Dutch, had no more than three barrels of pease, three of oatmeal, eleven sacks of malt, and one thousand seven hundred ship-biscuits. Nothing could be shot for want of powder, and they had no success whatever in fishing. They had intended to purchase seals from the Greenlanders, to eat boiled with their oatmeal, and to dress the fish with spermaceti instead of butter; but very few seals could be procured from the natives, who are exceedingly ungenerous towards the needy. Eight persons were accordingly obliged to put up with the allowance of one. Their fears also were doubled by a tale of the Greenlanders, probably a wanton lie, that they had seen the

wreck of a vessel almost totally immersed in the water, driving amongst the ice, and the crew wading up to their knees, and uttering lamentable shrieks for the minister, which they understood as signals for them to fetch a boat to their relief. "But," said they, "it was presently driven so far out to sea that we lost sight of it." To increase the embarrassment, the Dutch ship did not arrive at the colony at the appointed time; and what was more surprising, the factor with his men, who whohad taken their passage in a Dutch vessel for Europe, were seen shortly after, coming ashore quite alone in a boat. What this speedy return might portend, they could not conceive; but were agreeably disappointed on their landing, by receiving the joyful intelligence that they had met on their way the Norway ship, destined for the colony, and had sailed in it till within twenty leagues of Godhaab, where it anchored, not being able to run in for the ice: four days after it was piloted into the harbour. Grateful as this supply was to Mr. Egede, and his people, they were no less grieved to hear that another vessel, sent out early in the spring, had been wrecked, and that the vessel just arrived would not venture out to sea in August, but must winter in the colony; a circumstance which he expected would have a bad influence upon the company at Bergen.

XV. His apprehensions in the sequel, appeared too well founded. The colonists were informed by the arrival of two vessels in 1727, that the company at Bergen, had entirely disengaged themselves from the Greenland trade, because none wished to risk his property in a scheme from which no advantage was derived. However, the king still manifested peculiar zeal for its support, and notwithstanding the present gloomy aspect of affairs graciously engaged to carry it on himself. He had therefore sent a commissary who was directed to consult with the factor, how the trade with Greenland might be carried on to the best advantage.

Meanwhile, it was agreed that Mr. Albert Top, who had laboured four years with exemplary diligence and faithfulness in the mission, but owing to an enfeebled

constitution could no longer support the inclemency of the climate, should return to his native country, with a Greenland boy, humbly to represent to his majesty the declining state of the mission, and concert some more efficient measures for its support. As Mr. Egede hitherto saw little reason to hope that the gain produced by the trade would be equivalent to the expense of the colony, he endeavoured to devise some scheme to make it not only subsist alone, but contribute to the emolument of his country. In his relation, (see page 212, 220,) he gives us details of numerous experiments in alchymy, which, as might be expected, proved abortive. He was therefore forced to be satisfied with the hope that Almighty God knew how to make use of some other unknown, and perhaps improbable means of advancing his glory, by the conversion of the Greenlanders, which was the missionary's sole object in this laborious undertaking.

Meanwhile, he was very assiduous in visiting the Greenlanders, and during a scarcity of food, sent for a family who had craved his assistance: but they, in coming, had their boat cast away in a storm, the Greenland woman and her child were drowned, and the factor who went to their assistance, was with difficulty rescued from a watery grave. As they were obliged to remain out two nights, without any shelter from the cold, two persons had their toes frozen, and were forced to suffer amputation of the parts affected.

XVI. Mr. Egede meanwhile found that the inclination of the Greenlanders to hear his instruction gradually increased. Now and then one offered to live with him, and had he been ambitious of having a company of baptized, unconverted heathen, he might easily have introduced numbers of them into the society of nominal christians. Once having occasion to address them on the subject of baptism, in the course of his instruction, all flocked round him, desiring him to perform this ceremony upon them, and were much surprized that he doubted the sincerity of their faith and of their love to God. But unfortunately his scruples were but too well

grounded. Amidst all their pretences of firm and full belief in every thing that was told them, and their promises of continuing to hear, and to believe more, not the smallest change was observable in their lives, no conception whatever of their natural depravity, and consequently no heartfelt concern, no conviction of the truth, no longing after a happier state. The missionary frequently discovered to his sorrow, that their docility was only hypocritical affectation produced by fear or interest. Besides, the Greenland boys that were maintained at his expense, as well as the people who traded in the country, informed him that those very Greenlanders who pretended implicit belief, treated the singing, praying, and reading, with the utmost derision in his absence, though upon being reproved for it, they renewed their affected devotion.

He entertained more hopes that his exertions would be effectual in awakening some of the young people. Yet here also he ran great risk of disappointment, on account of the continual peregrinations of the parents, which deprived him of the opportunity of giving their children regular instruction. In 1726, he could only baptize one sick boy, whom he had previously instructed, and the following year the Greenlauder Poek's child; in the year 1728, its parents were also baptized. Yet, though affairs appeared so unpromising as even to stagger the intrepid missionary himself more than once in his hopes of remaining there, ample dispositions were made in 1728, not only to uphold, the commerce and mission, but to extend them, and to plant abiding colonies for the cultivation of the land.

XVII. Four vessels arrived in this year, one of which was a man of war. They brought materials, for erecting a fort, and new colony, with cannon and ammunition and a sufficient garrison under the command of major Paars, and captain Landorp. These gentlemen were to fill the different offices of governor and commandant, and to afford protection, both to the trade and also to such Greenlanders as desired protection, from the depredations of marauders. A considerable number of married

pairs were sent over from Copenhagen, consisting of masons, carpenters, and mechanics of all descriptions, some of whom adventured voluntarily, others were taken out of the house of correction, married, and sent over to cultivate the country. The officers brought horses with them to ride over the mountains, reconnoitre the country, and, if possible to discover lost Greenland, and one of the ships was ordered to make another attempt to land on the east coast.

By these arrivals, Mr. Egede was reinforced by two colleagues Mr. Olaus Lange, and Mr. Henry Milzoug. His eldest son returned in one of the ships to Copenhagen to prosecute his studies. Pock and his wife accompanied him with two Greenland boys and a girl. The former were now called Christian and Christiana; the latter having just before made a public confession of their faith, were baptized by the names of Charles, Daniel, and Sophia Magdalen, in the presence of the officers.

Immediate preparations were now made to remove the colony to the mainland, four leagues further to the east, and to enlarge it with the necessary buildings. But unfortunately a contagious disorder broke out just at this crisis, among the newly arrived Europeans. It appeared to Mr. Egede, not to be the common scurvy, but a malady occasioned by irregular living and want of exercise, as few of the sailors, or of the former inhabitants who had constant employment, were infected. The most useful workmen were speedily carried off, and the herds also died for want of proper attendance. Thus a fatal blow was given, not only to the design of taking a journey over the mountains, for this would at any rate have been impracticable with horses, but also to the establishment of colonies for the cultivation of the country. To aggravate their misfortunes, most of the new people, as soon as they discovered that Greenland was no Canaan, and that they had little opportunity of sensual enjoyment, grew discontented and fretful. At last a mutiny arose among the soldiers which threatened the lives both of governor and the missionaries, for they considered the latter, as the authors of their banishment.

Mr. Egede was therefore obliged to use a guard, and he who could before sleep unmolested in the tents of savages, was now forced to surround his bed with armed men, as a security against the attacks of christians. It was after all, providential for the welfare of the mission, that such seditious people were carried off by disease, as they would only have endangered the lives of its superintendants, and have furnished the Greenlanders with an example of riotous insubordination.

XVIII. This mortality lasted till the spring of 1729, when the residue of the invalids, were carried to the houses of the Greenlanders, and some of them saved from death by the use of scurvy-grass, which began to spring up above the snow. Though their number was greatly diminished, yet the governor made an attempt to execute the king's command and perform a journey to the east-side. He set out April 25th, with his lieutenant, the factor's assistant, and five other men, through the Amaralik gulph, but returned on May 7th without success, having found the whole country overspread with ice, which was not only so slippery and uneven that they could not stand upon it, but was rifted in clefts of various width, out of which the water gushed in immense quantities, and with a tremenduous roar.

After this failure, they took measures for erecting the new colony and fort at Nepisene, though they were just then intimidated by accounts received from a Dutch ship of a destructive conflagration at Copenhagen, which made them dubious about future support. However, they were soon encouraged to proceed by the arrival of ships laden with materials for building, and they also received fresh assurance, that the work would be forwarded with unremitting zeal. Lieutenant Richard received an order to try to make the east-coast, on his return with the frigate that wintered at the colony. But he also was prevented from attaining his aim by ice and storms.

XIX. The Greenlanders were not much gratified by this formidable accession of foreigners, especially of military men, whom they dreaded exceedingly, and the mortality amongst them was attributed to the incanta-

tion of a famous angekok, who had promised to destroy all the Kablunaks by magic. However, when they saw that some remained alive, and particularly the minister, whom they regarded as the proper lord of the Europeans, most of them removed to Disko-bay. This was the fruit of armed men and fortresses; the welfare of the mission was rather hindered than promoted by them.

Meanwhile, Mr. Egede held a conference with his two new colleagues, in which he proposed, that as little could be gained among the adult Greenlanders, except their cold assent to the word without any reflection on their misery, or desire after grace; those children should be baptized, whose parents professed their belief in Christian truth, in hopes that the latter might thereby be induced to live in the neighbourhood, and suffer their offspring to be taught the knowledge and the fear of God by capable instructors.

Both his colleagues acquiesced in his proposal, and Mr. Olaus Large corroborated it by a written thesis. The next year they received the approbation of the college of missions on the following conditions: 1st, That the parents be not enticed by artful allurements, but give their voluntary consent. 2d, That the parents be not induced by superstitious motives, imagining that baptism may contribute to the bodily health or strength of their children. 3d. That they enter into an obligation to suffer their children to receive regular instruction at the proper age. The missionaries were charged to keep an exact register, that they might always know what children had been baptized, and not perform the ceremony twice upon the same individual. They were enjoined not to baptize adults, till they had been instructed in the fundamental truths of the Christian religion, and evidenced a sincere desire after conversion. Accordingly, Mr. Egede made a beginning in Kookoernen, February 11th, 1729, with sixteen children, whose parents not only gave their consent, but requested to be baptized themselves; he then proceeded to baptize the children on the rest of the islands, and also in his former dwelling place in Kangek;

and he assures us in his narrative, that there were some among them who could give clear answers to the questions put to them.

He was obliged to make use of the baptized Greenland boy, Frederic Christian, in instructing these children, and now and then sent him to the islands to read to them and their parents. He himself had at this time but little leisure or opportunity for visiting the heathen. For though such extensive reinforcements of every kind had been sent for the furtherance of the mission, yet the greater and more useful part of the people had died, and the rest, excepting a few that were busily occupied in the trade, had gone to Nepisene with most of the boats.

The affairs of this new establishment were meanwhile in no very promising condition. The ship that wintered there for the sake of the whale-fishery caught nothing; and the trader got very little, because the Greenlanders concealed their best wares from the Danes, in order to sell them to other ships, from whom they could procure any article at a cheaper rate. By the detention of the vessel in 1730, they fell once more into great embarrassment about provisions. This was increased by the loss of a shallop near Godhaab laden with victuals. A boat that went to its assistance was also wrecked among the ice, and the most of the provisions in another shallop was thrown overboard to save the lives of the crew. However, at last the ship arrived safe at Godhaab, but owing to the approach of winter could not immediately proceed to Nepisene. It contained all kinds of building materials for the erection of houses in the valleys, formerly peopled by the Norwegians, and these houses were to be inhabited by families from Iceland.

But unfortunately the spring which set all these projects in motion, was suddenly removed by the death of Frederic IV. in this year. For when the government under Christian VI. saw no means by which the sums expended upon Greenland for a series of years could be reimbursed by the colonies, and that little success attended the endeavours used to convert the heathen, a

royal mandate was transmitted by the ship in 1781, that both the colonies should be relinquished, and all the people return. It was indeed left to Mr. Egede's option, whether he would return with the rest or remain in the country. In case he remained, he might keep as many people as were willing to stop with him, and provisions to last for a year; but he was expressly told that he had no farther assistance to expect.

Such being the proposals, no one could resolve to stay. Some soldiers who were offered to him would have been of no service, and the captains would not part with any sailors whom he could make use of. Thus he would have been necessitated, after ten years' labour, to abandon a country, to which he had worked his way with astonishing zeal, and to desert one hundred and fifty baptized children, had not the vessel fortunately been too small to carry away the stock belonging to the two colonies. Now it was apparent that every thing left behind, not excepting the houses, would, immediately after their departure, have fallen a prey to the Greenlanders, or to foreign traders. He therefore effected so much by his remonstrances, that ten seamen, with provisions sufficient for a year, were left him: yet this grant was only upon condition, that he should indemnify the captain for whatever loss it might occasion. He besides undertook to carry on the trade at his own risk, with the assistance of his second son; and promised, that though no ship should come in the ensuing year, he would nevertheless send the merchandise to the proper place in foreign vessels. His two colleagues, the governor, officers, and other people, went away, and took six Greenlanders with them. Not long after Mr. Egede received the afflicting intelligence, that the colony at Nepisene had once more been burnt by foreign traders, and all the stores which were left there consumed.

On account of these trying circumstances, which threatened the ruin of the mission, Mr. Egede was forced entirely to suspend the baptism of the children; not only because he was uncertain how long he might

remain to care for their education, but because he had lost his influence with their parents. For even before this fatal turn of affairs, when he requested them to send their children by companies to receive alternate instruction, they could not be prevailed upon to consent; and when he went to visit them, they concealed their sons lest he should take them away. They indeed intimated their sorrow at the sudden departure of the Europeans, and could not comprehend the cause assigned for it, that the expense of maintaining so many people far exceeded their gains. They imagined that such an opulent prince, who had such stores of bread and meat in his country, must be able to maintain more people than resided amongst them; or that, at all events, the Europeans might put up with the same fare as the Greenlanders. When it was alleged, as a farther reason of their being recalled, that their superiors had seen how little the Greenlanders hitherto regarded God and his word, they complained heavily that they had been traduced before the king, and declared their willingness to hear and to believe every thing told them by the missionary. They added, that they had proved their great respect for the king, by contributing so many barrels of blubber at his request: but in spite of all their assertions, Mr. Egede was soon convinced how little their pretended desire after God's word was to be depended on; for most of those whose children he had baptized, and who had promised before the transaction to settle in the neighbourhood, and suffer their offspring to be educated in a Christian manner, wandered so far away as to render themselves completely inaccessible, and consequently precluded all possibility of instructing either them or their children in divine truth.

Meanwhile such a series of labours, vexations, and anxieties had so harassed and worn out the missionary, besides producing a pectoral disorder, that he was no more able to travel about in the country as he had been accustomed to do; but was, in a great measure, compelled to commit the instruction of the heathen to his son,

who took an opportunity of teaching them the principles of Christian doctrine on his trading excursions.

Although no farther aid had been promised to the colony, yet the king was pleased to lay to heart the representations of the missionary, and sent him the necessary supplies in the year 1732; but still without assurance of further support. Meanwhile his people had been pretty successful in the blubber trade, and were able to remit a larger cargo than in any of the former years, in which such strenuous exertions were made. They would this time have defrayed the entire expense of the colony for one year, had they not unfortunately lost two of their largest boats during a storm in the preceding autumn, when the trade was most lively. Owing to this loss they were not able to make any voyages in the spring, but were obliged to leave all the merchandise to foreign ships.

Two men arrived with the ship, who had been sent to discover the passage to the east side from God-haab, and to search for minerals in the Greenland mountains. In the ensuing year, they set out on the voyage, but were prevented by the accumulation of ice from proceeding farther than lat. 61°. They met with no minerals, except some lead-ore, and some orange-coloured earth for dyeing.

In the year 1733, Mr. Egede, after two years' continual suspense, was at last rejoiced by the arrival of a ship on May 20th, with the intimation, that the Greenland trade and mission should be recommenced and supported. For this purpose, the king was graciously pleased to order a free gift of one hundred pounds annually.

With this ship arrived the three first missionaries from Herrnhuth, namely Christian David, Matthew Stach, and Christian Stach. And now, as our proper business is to write the history of the Moravian mission, we shall here break off the account of the Danish trade and mission, especially since we have not the means requisite for its continuation, leaving it to those whom it more properly concerns, and who have access to the necessary

records. However, the incidents which occasioned the revival of this apparently just expiring mission, and the chief occurrences which befel Mr. Egede till his departure from the country in 1736, shall be intermingled in the course of our narrative.

NOTES.

NOTES.

NOTE I. p. 2.

Concerning the tide and currents, upon which all theories relative to the probable existence of the so-called North-west passage principally turn, some few additional observations may not unsuitably be inserted here; though the collision of two well-known periodical publications has struck out so great a number of novel and interesting remarks on the subject, that many new arguments can scarcely be expected from us. We shall therefore content ourselves with giving a general statement of the matter in question. That some kind of current or currents does exist in Davis's as well as Behring's Strait, seems to be pretty generally allowed; but whether there be a regular stream setting to the south, down the western shore of Greenland and the eastern of Terra Labrador, occasioned by the constant afflux of water out of the Arctic ocean, is a question involved in much uncertainty. A progressive motion of the sea in the channel alluded to, will doubtless be frequently occasioned by the action of the wind and tide, which last, as far as we can learn, generally flows in a northerly, and ebbs in a southerly direction. Large masses of ice driven along by the wind will also draw a portion of water after them, so as to give the appearance of a current. But this does not seem to be all. Several voyagers to these seas join in asserting, that they have observed hills and islands of ice, making way against both wind and tide, being propelled by some invisible power. Amongst these authorities one of the most conspicuous, as well as, in our opinion, one of the most creditable, is Fabricius; for we know not upon what grounds, such an entire want of judgment can be attributed to this otherwise enlightened writer, as to warrant the supposition,

that he mistook the relative for the absolute motion of an ice-berg. The fact we believe to be this; that large blocks of ice, whose deep-sunk bases had been caught by the submarine current, have been seen crushing their way through lighter fields attached to the shore, while other substances, or floes of ice, were floated by the superficial tide-stream in a contrary direction. How long a current of salt-water may hold on its course, in a detached stream, without communicating any motion to the surface of the sea, we do not pretend to say. Supposing, however, that the northernmost mouth of the still gratuitous passage into the polar basin, were blocked up by one of those barricadoes of ice so frequently met with at the entrances of Greenland bays, we think it not improbable that this obstruction, operating like the sluice of a mill-dam, might occasion a current to run for a considerable distance under the surface, either till it were entirely lost in the vast profundity of the ocean, or till it had diffused its power over the whole mass of water in Davis's Strait, so as to give it a slow but constant motion toward the south. One strong argument for the real existence of such a motion, is the known tendency of the majority of the ice-bergs to move to the southward. For were this not the case, the accumulation of ice in Davis's Strait would be still more enormous than at present. That vast numbers of these bergs are annually driven down into more southern latitudes, and there melted by the sun, is manifest; yet how this should be the case, were they only impelled by northerly winds and the ebb-tide, in opposition to winds and tides in a contrary direction, without any constant impulse, it is difficult to conjecture. Is it not probable that the diminished velocity of the tides towards the north of Baffin's Sea is owing to the more immediate and stronger action of a current upon those tides near to its embouchure in the mouth of some wide inlet? Indeed it seems, upon the whole, as if the bulk of the arguments intended to be subversive of the existence of any steady current at all in Davis's Strait, are in a great measure founded upon the supposed futility of the observations made by many of our old navigators, and upon the infallibility of more recent adventurers. Be it remembered, that even most modern discoveries prove how little the confidence placed in our old sailors has been put to shame. They were truly men of greater enterprise than has fallen to the share of most of their successors. The argument deduced from various appearances of drift-wood under peculiar circumstances, has been made matter of ridicule; but we ought to recollect, that

seemingly very trivial appearances of this kind have guided some of our most distinguished primitive discoverers to ultimate success.

We are aware, that we may have already tired out many of our readers, but we cannot refrain from adding a word concerning the expedition, which, after having been furnished by Government with every requisite, to set at defiance all the probable vicissitudes and dangers of such a perilous enterprise, has lately returned from an attempt to explore the recesses of Baffin's Bay, and settle the disputes of contending theorists. It is unnecessary to mention, that the journal of the navigator employed, tends altogether to discourage any hopes of finding a passage; but he must, in fairness, be allowed to have failed in finding one, without establishing the impossibility of success. It is well known how long and in many places how tortuous those bays and inlets are, by which the western shore of Greenland is so deeply fissured; and may it not be presumed, that some of those which fell under the notice of Captain Ross, towards the north of Davis's Strait, and Baffin's Sea, are of a similar form? Now, without penetrating into each of these, which afforded the smallest chance of a passage, and driving the vessel as near as possible to its farthest extremity, the curiosity of the public cannot be satisfied, nor the want of communication ascertained. In one of these winding channels, a small projecting head-land might veil a passage, through which a seventy-four gun ship might sail triumphantly, and proceed without obstacle into the bosom of the Pacific. Again, when in addition to this we recollect, that a Greenland atmosphere is subject to changes which give it extraordinary powers of refraction, so as to amuse the eye with a variety of deceptive appearances, the navigator ought to suspect the accuracy of his ocular observations, at any rate when they regard objects at a distance of eight leagues. In brief, he ought not to rest satisfied with any thing short of actual experiment. These remarks are by no means to be understood as meant to convey any reproof to the skilful officer employed; for a hundred circumstances, of which we are ignorant, may have entirely precluded such investigation as we conceive to be necessary. Neither can we for a moment harbour the idea, that the voyage has been entirely fruitless. Besides affording some very novel and important information relative to the variation and dip of the needle, and a variety of meteorological observations, it has pretty clearly ascertained, that Baffin's Bay is really a bay; we mean, that it is not prolonged by any thing like

parallel or gradually converging shores into a channel leading to the main ocean. But till such inlets as Wolstenholme Sound, Smith's Sound, Pond's Bay, Lancaster's Sound, and Cumberland Strait, (all of which seem to have presented promising appearances,) are more fully examined, the absence of any communication remains to be proved. We know of no question upon which more subtle argumentation might be expended to less purpose, than that concerning the existence of a north-west passage, and none more likely to disappoint the expectations of the most intelligent theorists. The fact is, that it is completely a matter of experiment, and by experiment it will be decided. Therefore, even supposing that none of those circumstances and appearances which are supposed to denote the reality of such a passage, were found actually to exist, still it would behove a person upon whom expecting Europe relied for information, to press forward in spite of every discouragement, to despise danger, to seek where his reason almost decided against any chance of finding, and where destruction threatened, to devote himself to the cause of his mission; in order to silence, as far as possible, the most captious objectors, either by finding a passage, or experimentally proving its non-existence. He ought moreover, to recollect that to *the many*, who have not sufficient philosophy to regard the acquisition of truth as their highest gratification, that negative success which would explode the doctrine of a north-west passage, must be highly disagreeable.

But we must again disclaim any intention of throwing uncharitable aspersions upon the official character of Captain Ross. We only lament that some things seem to have been unfavourable, and hope that a happier combination of circumstances may facilitate the progress of future adventurers. Steady perseverance is sure at last to prevail, and we feel satisfied that, independent of the prospect of any commercial advantage, the natural and laudable curiosity of mankind, to explore what may be termed the utmost extremities of their domain, will not allow them to rest, till the possibility of arriving at the Pole, and of penetrating into the Pacific Ocean, through Davis's Strait, be either negatived or ascertained.

NOTE II. p. 17.

It will be observed that the geographical notices of the coast between the colony of Frederic's-haab and Cape Farewell, are very imperfect, owing to the want of authentic information. It may therefore be proper to supply the deficiency by a few additions from the supplement to Crantz's History, published in Germany, and not translated into English. The subject is very uninteresting in itself, but the mention of the places may perchance be of use to future voyagers. A journey undertaken by one of the Brethren from the settlement of Lichtenfels, in company of several Greenlanders, who were desirous of spreading their knowledge of the truth among their relatives in the south, served the secondary purpose of extending our acquaintance with that part of the coast. The first place noticed south of Frederic's-haab is,

1. *Narksalik*, i.e. the flat country. It is at a distance of about seven or eight leagues from the colony. Near to it is

2. *Sermelik*, the ice-beset, a large inlet which the missionary took for Frobisher's Strait. He writes concerning it: "We arrived here just when the ice was leaving the land, which it does every year at the same time. It had already stretched a considerable way into the sea. If we may believe the Greenlanders, the course of this bay is marked by an accumulation of ice to a great distance inland, and under this everlasting vault a current runs, which expels every year immense quantities of floating ice. No one dares to approach the fixed ice on the shore, because large fragments of it are continually falling from a wall of perpendicular rocks, with a noise and commotion of the water, exceeding the effects of the most violent storm."

3. *Nekturaglik*, the eagle, a high promontory.

4. *Kingiktorsoak*, the very high mountain, called in our maps Cape Comfort, is about sixty miles from Frederic's-haab. Near to it is *Sermeliarsok*, mentioned above. Whenever there is a land breeze, it drives out of this bay quantities of flat ice, which is nevertheless fresh, and must consequently have originated in some river. Many maintain that this inlet is the so-called Frobisher's Strait, and allege that as there are no rivers in Greenland which could supply so much ice, it must have been formed in the rivers of Tartary, and from thence have accompanied the field-

ice to the shore of East Greenland. "I," says Crantz, "take this bay to be the former passage, or the real Frobisher's Strait, which is marked in all charts near Cape Comfort." Two miles from hence is,

5. *Serchaet*, which consists of two dangerous head-lands.

6. *Torngarsuk*, about eight miles from Serchaet, a high mountain, in which, say the Greenlanders, lives the Great Spirit, because there is a large hole near its summit, reaching down to the water.

7. *Gunaet*, thirty miles from Torngarsuk, the highest mountain in this neighbourhood. Here is a good haven, and the rendezvous of the Greenlanders before they proceed to the north. Then follow at intervals of twenty-four and twenty miles *Kepisako*, a large island, and *Ittiblik*, i. e. the flat strand. Ships ought here to keep several leagues out at sea, in order to clear the head-lands. About eighteen miles from Gunaet, are *Kittiksungoit*, i. e. the small islands, the shores of which abound in the species of seal called by the natives *Klapmutz*, phoca cristata. In their neighbourhood is *Tessiursak*, a harbour formerly frequented by Dutch traders. It is so completely enclosed as to resemble a pond.

8. *Nunarsoak*, i. e. the great land, a steep promontory, backed by a frightful wilderness. This is the first place in the south from whence Greenlanders came to New Herrnhuth.

9. *Sermitsialik*, forty miles from Ittiblik, a glacier or mass of ice which reaches from the mountains to the strand. It is worthy of notice, as being the birth-place of Samuel Kajarnak. He visited it after his baptism, and by his example awakened many of his old acquaintance. Near this place is *Tuktutok*, i. e. rein deer place, a kind of market of the Southlanders; and *Ekaluglik*, an island.

10. *Ikkersoak*, mentioned above, is thirty miles from Sermitsialik. The entrance of this bay is of a semicircular form, and is studded with islands of various dimensions. The largest is *Pudlek*, i. e. fox-trap. From this island, the Greenlanders sail twelve or fourteen miles through a sound, called *Ikkerirsoak*, i. e. the great sound, to

11. *Tunnuliarbik*, mentioned above, a large fiord, which penetrates by different ramifications at least thirty-four miles into the land. On its shores is a small plain, which wears every appearance of former cultivation. "Of houses," writes the above-mentioned travelling missionary, "I saw here no remains, excepting a heap of stones; but on the 27th (April 1766), I went with a boy to one of the habitations

of the ancient Normans. There have existed here two buildings. One lies upon a rock under a high mountain, and appears to have been a chapel. The inner chamber is eight yards long and four broad, but its walls are only two yards high. The other building is larger, being twelve yards long, and six broad. There is nothing to be seen either of lime or earth between the stones. The Greenlanders have made a burial-place of it, and for this purpose have used the stones of the old walls. The place on which these buildings stand, is called *Narksak*, i. e. the flat land. It is one of the prettiest spots in Greenland, but unfortunately is beset with ice nearly the whole year round."

12. *Kakortok*, i. e. the white bay, is a day's journey from *Narksak*. Between the sea and the mountains, there is here a large plain which seems to have been once cultivated, or, at any rate, used as pasture-ground. It is now completely carpeted with dandelions, which reach up to one's knee. In this neighbourhood pieces of bell-metal are found, demonstrating the previous existence of churches in Greenland.

13. *Igalak*, i. e. the window, lies near the southern extremity of the last-mentioned bay. Here also there are remains of old Norwegian erections.

14. Twenty miles south of *Igalak* is the fiord of *Agloetsok*. It penetrates so far inland in a north-easterly direction, that its extremity approaches very near to *Kakortok*. Its shores are overgrown with brushwood.

15. About eighteen miles south of *Agloetsok* is *Onartok*, mentioned above, and close to it,

16. Cape Farewell and Statenhuuk, the most southern point of Greenland.

As to the outline of the coast north of *Noogsoak*, the last place mentioned by Crantz, we have very little information. A few miles north of this factory, there was formerly another, called Operniwick, but it is now deserted. Near this is Sanderson's Hope, and farther north, about latitude 77° 40', Cape Dudley Digges. Then follows Wolstenholme Sound, if we are rightly informed, in latitude 78°; and about a degree farther to the north-west, at the extremity of Baffin's Bay, Sir Thomas Smith's Sound. Several degrees to the west of this strait lies Sir Alderman Jones's-Sound, and farther south Sir James Lancaster's Sound, between which and Cumberland Strait, the entrance into Hudson's-bay, there is no place or sound deserving of notice.

Captain Ross, in his Journal, mentions his having met with native inhabitants of Greenland, in latitude 75° 54', concern-

ing whom the most curious circumstance is, that they have no knowledge whatever of the existence of their southern neighbours; not even being acquainted with the name of the Greenlander's most necessary article, the kajak. This entire isolation is the more wonderful, as the natives of Disko Bay constantly assert, that the country is inhabited as far as latitude 78°.

NOTE III. p. 33.

It is a strong argument in favour of the infinite wisdom of Him who planned the system of Nature, that even those results which seem necessarily to follow from the consistent operation of the different elements, in various circumstances, upon each other, generally answer some particular end in the wide economy of the universe. We are therefore warranted in supposing that the vast girdle of congealed water which embraces the polar regions of our globe, in some way promotes the well-being of the world, or of its inhabitants. On the method of its operation, *we* are incapable of throwing any light, but feel convinced, that it is not so recondite as to elude the researches of an accurate and able observer. May not, for instance, those immense plains and mountainous masses of ice, be (to speak so unscientifically) a kind of repository of cold, capable of counteracting, by generating currents of air, the superfluous caloric, which might scorch those climates that meet the rays of the sun at a larger angle, and imbibe a more than sufficient portion of his warmth. The doctrine that the disruption, change of position, or dissolution of the polar ice, has a more immediate influence upon the climate of Europe, has already been discussed by abler pens than ours.

Among the appellations given to the different forms and species of the polar ice, two are predominant, mountains and fields; the former consisting uniformly of fresh, and the latter of salt, water. Concerning the origin, particularly of the latter, as we learn from Crantz, there are various opinions.* It was a favourite notion of our ancient navigators, that the main sea never freezes; and it was certainly not adopted rashly, being strengthened by many circumstances that immediately affect the surface of the ocean. From the daily and accurate observations of the thermometer during several years in Greenland, it appears that no severe frost ever continues long

* See above.

enough to overcome all opposing circumstances, in so far as to overspread the agitated bosom of the ocean with a sheet of ice. For even the coldest weather is often, especially at sea, accompanied by pretty strong winds, and interrupted by temporary thaws, both of which would preclude the congelation of any extensive portion of the salt water. This remark will receive force from the consideration, that that vast Profound is in a state of constant circulation, continually tending to equalize the temperature of the water, both at different depths, and in different latitudes and longitudes, by means of a vertical and horizontal motion, which, it is scarcely necessary to mention, results from the propensity of the subtle fluid to restore its own equilibrium, when lost by partial rarefaction or condensation. Hence it appears that the caloric has a tendency to an uniform diffusion through the whole mass of the ocean; and that consequently, the great depth of the latter is one obstacle to its freezing.* For unless the decrease of temperature be so sudden as to congeal the surface, before the superficial water, by its newly-acquired density, can descend and give place to the warmer ascending fluid, no permanent or extensive coat of ice can be formed. Now the vast tide of water which the Pacific is continually pouring into the Arctic sea, must certainly, in the way above mentioned, contribute to counteract the frigorific impressions of the atmosphere, which will not easily penetrate so far as to overcome the heat furnished by the constant influx of a warmer fluid. In deep still bays and land-locked inlets, the case is different. These not being so much exposed to the influence of winds, tides, and currents, may and do actually freeze every year, with ice of several feet in thickness, which is afterwards floated out into the ocean, either by the ebb-tide or some unusual swell in the water. In the main sea, occasional very trifling crystallizations may take place, or possibly in peculiar circumstances a thin sheet of ice may overspread a portion of its surface; but these will inevitably be speedily broken up and dispersed by the restless element. What the seamen call sludge and pancake ice are probably of this description, but they seldom even materially clog the motion of a vessel through the water. It may be also mentioned, that large lumps of fresh-water ice, rendered stationary at a con-

* According to observations made on the Polar Expedition, the temperature of the water was actually found to increase in proportion to its depth. With regard to those made in Davis's Strait, it is difficult to conjecture how the water could remain in a liquid state at so low a temperature.

siderable distance from the shore, may serve as so many nuclei, round which a crust of field-ice might be formed. According to Crantz, such masses are frequently met with in ice fields. Such formations, however, will be rare and transient. Indeed, the friable and spongy nature of saline ice makes against its stability; and must render both its disruption and dissolution easily accomplished.

In general it will be found, that where large sheets of field-ice are formed, there is some land to which they have been primarily attached, and from which, being fortified on one side against the shock of the waves, they may have gradually expanded themselves some way into the sea, till an extraordinary convulsion of the water tore them off, and delivered them up to the joint action of the winds and currents. We must, therefore, look for the prodigious fields which infest the polar seas, in the deep bays along the coast of Greenland, and to that broad fringe which is annually formed on the shores of the Arctic regions. The freezing of several sheets together may account for those plains which seem too spacious to have originated in a bay. No doubt the frost has also a vast and productive laboratory on the shore of East or Lost Greenland, from whence it annually sends out large quantities of ice to repel the inroads of navigators into its dreary empire. There may be land under the pole, though some circumstances seem to make against the supposition. If there be, a large proportion of the polar ice probably originates in that quarter; but we imagine, that the sources above mentioned are sufficient to account for all the ice which has hitherto retarded the progress of discovery. In support of this last remark, the expressions of Captain Hudson on the subject might be quoted. They are as follows:— "It is no marvel, that there is so much ice in the sea toward the Pole, so many sounds and rivers being in the lands of Nova Zembla and New-land to engender it; besides, the coasts of Pechora, Russia, and Greenland, with Lappia, as by proofs I find by my travel in these parts; by means of which ice, I suppose there will be no navigable passage this way."

As to the ice-mountains, Crantz's explanation of their origin seems very lucid and satisfactory. That they are formed by slow degrees on the summits of those lofty and steep rocks which fence the coasts of Greenland, appears certain. We shall, therefore, only add a word explanatory of the remark of Crantz concerning the explosions among the glaciers of Switzerland, and its application to those of Greenland. These

explosions, are, beyond a doubt, occasioned by the expansion of the air secreted under the bottom of the ice. For it is natural to suppose that a considerable portion of heat will be evolved during the cooling of the upper stratum of the earth by the contiguity of the ice, and that this heat may expand the air with a force sufficient to destroy the equilibrium of the superincumbent mass, and project it into the sea. And, why may not such a process take place in Greenland as well as in Switzerland? But to return to our former subject. Supposing it to be granted, that no extensive sheet of ice can envelope the main ocean, we have reason to hope, that, if a passage, through Davis's Straits, either to the Pole or to the Pacific, be once effected, the frequent repetition of the voyage will not be impracticable. Having cleared that immense barricado, which stretches like a rampart along the upper shores of America, Greenland, Spitzbergen, and Siberia, the navigator might probably spread his sail to the wind as fearlessly as in the midst of the Atlantic. Nor is this a mere hypothesis. Many seamen of respectability, who have reached very high latitudes, have declared that they found the sea clear of ice. Indeed the intensity of cold can never be estimated by the proximity of the Pole. In places between which there is no *very* great difference of latitude, it depends much more on local circumstances; for every one knows, that in countries far inland, the cold is both more constant and severe than in those which are exposed to the sea-breeze; that, for example, in some districts of Asiatic Russia, in the same degree of latitude as the central parts of France, the frost in winter is more intense than in the Highlands of Scotland, or in places still farther north. Now may not the same rule hold with respect to the Arctic regions? Indeed, many navigators have declared that they could see no reason why a ship might not winter under the Pole. Again, may not the electric fluid, which, from different phenomena, seems to be most abundant in the neighbourhood of the Pole, in some measure, moderate the effects produced by the absence or feebleness of the sun's rays. So much is certain, that the developement of the secret and important agency of this subtle but powerful fluid, especially in whatever regards the atmosphere, seems to keep pace with the advancement of general science.

NOTE IV. — Page 46.

The remark will generally hold, that where Providence denies some of her gifts, she generally makes up the deficiency by others, and that the more accurately we collate the advantages and disadvantages of climates, as well as situations, the more we become convinced of her impartiality. Greenland affords one instance of the truth of this observation. The bracing power of the pure cold air of this inhospitable region, imparts to the hardy savages, a tone of constitution, and a consequent uniform cheerfulness, which are no bad equivalents for the transient enjoyments produced by the stimulating luxuries of southern climes; and the absence of the bright god of day is compensated by the splendid beams of the Aurora in the night, while our skies are seldom visited by this interesting phenomenon. The varied aerial scenery displayed by these lights, has frequently a very imposing effect. Sometimes nearly the whole of the blue sky appears like one vast dome of burnished gold, which, however, is presently transformed, with lightning rapidity, into a diversified assemblage of fantastic, or formidable shapes; sometimes presenting to the astonished beholder, the appearance of a glorious amphitheatre, splendidly fitted out with dazzling furniture, and decked in all the colours of the rainbow. This fire-built structure, however, does not last for many seconds. All its parts soon acquire a tremulous motion: and afterwards the rays cross and intermix with inconceivable velocity, dancing sportively through the heavens with a constant interchange of colouring, and in the most amusing variety of forms, till the approach of the sun closes the wonderful exhibition. The suddenness with which the scenes shift, resembles the rapid succession of different patterns, produced by shaking a kaleidoscope. Whoever witnessed the Aurora Borealis, as observed a few years ago, in Ireland, will not conceive this statement to be exaggerated. It took place in Autumn, and was harbingered by a zone of bright light, stretching across the heavens from east to west, nearly in the arch of a great circle.

Without entering upon an elaborate disquisition concerning the production of the northern lights, we may presume to hint, that the vast accumulation of ice, which blocks up the shores of Greenland, and other polar regions, may have some connexion with their formation. For, on the general

supposition, that they are the offspring of electricity, the nature of the ice renders it not improbable, that it may, under certain circumstances, throw out a species of electrical exhalations, which do not assume a visible form, till they come in contact with some kind of vapour, in the upper regions of the atmosphere. This theory, at any rate, derives some plausibility from the observation, that the brilliancy of the Northern Lights, in any particular place, increases or decreases according to the accumulation or dissolution of the ice in its neighbourhood. On the occasion above mentioned, the hissing sound which has been said to accompany the Aurora, was distinctly heard, and adds another argument to the generally received hypothesis, that it is some modification of the electric fluid.

It is certainly a subject well worth the attention of the learned, since, as far as we know, no one has given a satisfactory explanation of its origin. Bergman, Carter, Beccaria, and others, have written concerning this splendid meteor, but their conjectures appear rather childish; and the learned treatise of Dr. Hamilton, in which he labours, to establish some affinity between it and the tails of comets, is an excellent specimen of subtle argumentation, but adds very little towards clearing up the difficulty. — We cannot forbear concluding these undigested remarks, with that beautiful allusion to the Aurora Borealis, in Southey's Curse of Kehama.

> " Here too the elements for ever veer,
> Ranging around with endless interchanging;
> Pursued in love, and so in love pursuing,
> In endless revolutions here they roll;
> For ever their mysterious work renewing:
> The parts all shifting, still unchanged the whole.
> Even we on earth, at intervals descry
> Gleams of the glory, streaks of flowing light,
> Openings of heaven, and streams that flash at night
> In fitful splendour through the northern sky."

NOTE V. — Page 49.

The following barometrical and thermometrical observations, made in New Herrnhuth, between November 1767, and July 1768, and reduced to the form of a table, by Surgeon Brasen, a friend of Crantz, may perhaps tend to amuse the scientific reader. The height of the quicksilver in Fah-

renheit's thermometer, was accurately remarked about 8 A.M. when the cold is greatest, and about 2 P.M. when it is least. The comparative strength of the wind is denoted by the numbers 1, 2, 3, 4, 5, 6, progressively, from a light breeze that is scarcely perceptible, to a hurricane.

Day of the Month.	Barometer.		Thermometer.		Strength of the Wind.		Weather in November.
	D.	M.	A.M.	P.M.			
☉ 1.	27	6	35	33	W.N.E.	2.	Snow.
☽ 2.	27	26	26	27½	N.E.	3.	Do.
♄ 7.	27	28	19	19	E.	4.	Clear.
☿ 11.	27	29	16½	18	N.E.	4.	Do.
☉ 15.	27	10½	23	25	N.E.	2.	Sunshine.
☿ 18.	27	5½	35	34	S.E. to N.E	2.	Snow & Sunshine.
☉ 22.	27	8	19	22	E.	3.	Clear.
♃ 26.	27	10	24	25	N.	3.	Snow.

In the beginning of this month there was uninterrupted frost. In the middle the weather was milder, but towards the end, it again froze very hard. The wind was chiefly north, tolerably strong, and the air mostly filled with clouds and snow.

Day of the Month.	Barometer.		Thermometer.		Strength of the Wind.		Weather in December.
	D.	M.	A.M.	P.M.			
♂ 1.	28	1½	34	33	N.	3.	Snow.
♃ 3.	27	8½	43	40	N.	3.	Cloudy.
☉ 6.	27	2	27	27	E.	3.	Sunshine.
♀ 11.	27	6	16	18	N.	3.	Clear.
♂ 15.	27	5	12	15	N.	3.	Clouds & Sunshine.
♀ 18.	27	4	7	8	S.E.	2.	Clear.
☽ 21.	26	7½	28	28	S.E.	4.	Snow.
♄ 26.	28	3	36	45	S.E.	2.	Cloudy.
☿ 30.	27	10	46	48	E.	3.	Clear.

In the first five days of this month, and in the six last, there was no frost; in the middle it froze very hard, with the wind in the south. East winds, upon the whole, prevailed, which brought cloudy weather, but little snow.

Day of the Month.	Barometer.		Thermometer.		Strength of the Wind.		Weather in January.
	D.	M.	A.M.	P.M.			
♀ 1.	27	8	45	37	E.	3.	Sunshine.
♄ 2.	27	7	40	31	E.	3.	Clouds & Sunshine
☉ 3.	27	7	40	39	S.E.	2.	Sunshine.
☽ 4.	27	9	40	37	E.	2.	Do.
♂ 5.	27	9	32	40	S.E.	2.	Clouds & Sunshine.
☿ 6.	27	10	38	37	E.	2.	Sunshine.
♃ 7.	27	11	30	37	E.	2.	Clear.
♀ 8.	28	0½	42	38	E.	2.	Do.
☉ 10.	28	4	26	31	E.	2.	Clouds & Sunshine.
♃ 14.	27	6	17	17	N.E.	2.	Sunshine.
☉ 24.	27	27	6	5	N.E.	3.	Do.
Evening			3	0			
♄ 30.	27	9	25	35	S.	5.	Heavy Rain.

This month, which in Germany was colder than in the year 1740, was in Greenland remarkably mild. It did not begin to freeze till the frost in Europe had abated. Towards the end of the month, the weather was more severe, but it soon changed again, and the month closed as it had begun with a thaw, a strong south wind, and rain.

Day of the Month.	Barometer.		Thermometer.		Strength of the Wind.		Weather in February.
	D.	M.	A.M.	P.M.			
☽ 1.	27	27	22	18	N.W.	4.	Snow.
♄ 6.	28	2	7	12	N.E.	4.	Clear.
♂ 9.	28	2	28	30	S.E.	2.	Cloudy.
♄ 20.	27	0	14	34	N.E.2. S.	4.	Sunshine & Rain.
♂ 23.	26	11	3	7	N.E.	3	Clear.
☿ 24.	26	11	4	6	N.E.	3	Hazy & Clear.
♃ 25.	26	11	4	6	N.E.	3	Clear.
♀ 26.	26	9	1	1	N.E.	3.	Hazy & Clear.
♄ 27.	27	1	4	2	N.E.	3.	Cloudy & Sunshine
☉ 28.	27	11½	2	10	N.E.	4.	Clear.
☽ 29.	28	0	15	30	N. 2. S	3.	Do.

In this month, the quicksilver in the thermometer was generally under the freezing point, and towards the end, the frost was very severe, yet not quite so strong as in January of this year at Berlin. The sky was generally serene. There were only seven days of snow and one of rain.

Day of the Month.	Barometer.		Thermometer.		Strength of the Wind.		Weather in March.
	D.	M.	A.M.	P.M.			
♂ 0.	28	1	32	32	S.	4.	Clouds & Sunshine.
♀ 4.	27	7	34	37	S. & N.	2.	Clouds & Sunshine.
♂ 8.	26	10	32	29	S. 5. &	4.	Snow & Hail.
♄ 12.	28	1	9	11	N.	3.	Sunshine.
♂ 22.	27	1	34	37	S. & N. E.	2.	Rain & Snow.
☉ 27.	27	0	21	20	N.	4.	Snow.
♃ 38.	27	5	11	21	N.	4.	Stormy, Snow.

The frost in this month alternated nearly every other week with mild weather, and came sometimes with a north, sometimes with a south, and rarely with a west wind. It was often stormy, with snow and sometimes rain.

Day of the Month.	Barometer.		Thermometer.		Strength of the Wind.		Weather in April.
	D.	M.	A.M.	P.M.			
♀ 1.	27	9½	14	25	N.	3.	Snow.
☉ 3.	28	2	27	40	N.E.	2.	Clear.
♄ 7.	27	4	26	31	N.E.	3.	Clear.
♂ 12.	27	2	26	35	N.E.	1.	Hazy.
☉ 17.	27	0	30	40	N.E.	2.	Clouds & Sunshine.
♄ 23.	27	5	24	25	N.	2.	Sunshine.
☿ 27.	26	11	40	37	S.	1.	Rain.

The days in this month were alternately frosty and the contrary. The thermometer in the forenoon was in general considerably below, and in the afternoon considerably above, the freezing point. The wind was generally N. and E. seldom S., and never W. The weather was mostly cloudy. Little snow fell, and it only rained twice.

Day of the Month.	Barometer.		Thermometer.		Strength of the Wind.		Weather in May.
	D.	M.	A.M.	P.M.			
♂ 3.	27	26	24	26	W.	2	Sunshine.
♄ 7.	27	29	28	35	N.E.	1	Clear.
☿ 11.	27	3	29	41	N.	1	Sunshine.
♄ 14.	27	6	34	43	W.	1	Clouds & Sunshine.
♀ 20.	27	1	32	39	N.	1	Clouds & Sunshine.
☿ 25.	26	11	55	58	S.E.	1	Clear sky.
♂ 31.	27	6	36	45	N.	2	Clear sky.

In the first three weeks of this month, the quicksilver in the thermometer was generally under the freezing point every day, though in the afternoon the weather was mild: after the 20th it never froze.

Day of the Month.	Barometer.		Thermometer.		Strength of the Wind.		Weather in June.
	D.	M.	A.M.	P.M.			
☿ 1.	27	6	36	48	N.	1	Clouds & Sunshine.
☉ 5.	27	8	44	53	W.	1	Clear.
♃ 9.	27	9	49	64	N.	1	Clear.
♄ 11.	27	8	38	49	W. 2. N.	3	Clouds & Sunshine.
♀ 17.	28	0	41	44	S.W. 3 &	4	Cloudy.
♄ 25.	27	6	43	61	W.S.W.	2	Sunshine.
♃ 30.	27	6	44	60	N. 1 &	3	Clear.

The air in this month was generally mild, excepting some cloudy forenoons: there was almost constant sunshine and agreeable spring weather, which is rare in Greenland.

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Day of the Month.	Barometer.		Thermometer.		Strength of the Wind.	Weather in July.
	D.	M.	A.M.	P.M.		
♀ 1.	27	6	40	56	N. 1 & 3	Cloudy.
☾ 3.	27	5	48	60	N.E. 2	Do.
♂ 5.	27	4	47	63	W. 1	Sunshine.
☽ 11.	27	4	46	40	W. 2. S.W. 3	Snow & Sunshine.
♂ 12.	27	6	39	48	S. & N. 2	Cloudy.
♀ 15.	27	7	39	41	S. 5	Heavy Rain.
☿ 20.	27	6	54	63	N.W. 1	Clouds & Sunshine.
☿ 22.	27	6	55	57	N.W. 1	Sunshine & Clouds.

The height of the quicksilver fluctuated between 40° and 60°, and rarely reached 64°. On account of the fogs, snow, and rain, it was not so warm and pleasant in this month, as in the preceding; and the air seldom exceeded the average warmth of a German spring. We must, however, observe, that the observations in the beginning of June were taken in *Pissiksarbik*, ten miles farther from the sea, where the sun's rays are more powerful. The sky was mostly cloudy with intervals of sunshine.

NOTE VI. — Page 51.

1. *Granite.* — "The granite of this island is fine granular, consisting of pearl-white felspar, greyish black mica, and very little quartz of a black grey colour. The whole rock is very much iron shot and disintegrated. At the foot of the granite rock occur beds of common quartz, (not milk quartz,) and flesh-red felspar, common hornblende, with small crystals of moroxite, and foliated or common apatite. Flesh-red felspar, magnetic iron-stone, and gadolinite, crystallized in longish four-sided pyramids, are also met with. A bed on the east *side of Cape Farewell contains garnets in a fine granular greyish-white rock, very much resembling the rock of Hamast in Moravia, called by Werner, weiss stein. The granite extends from Cape Farewell, over the islands of Statenhuk and Kakasoetsiak, and Cape Disko, to a distance of more than 400 miles. Talc-slate forms a large bed in it at Akajarsanik. Common schorl, tourmaline, common hornblende, rock crystal, calcareous spar, and fluor spar likewise accompany it.

2. *Gneiss.* — The smaller fragments were used by the old Norwegians, with mica slate and slaty-clay stone, to build their houses. Gneiss constitutes one of the most elevated points of this extensive coast, *viz.* the mountain of Kingittarsoak. The top of this mountain is similar in shape to the roof a house, while the ridge is not much elevated.

The mica-slate resting upon the gneiss presents a variety of beds of hornblende slate, weiss-stein with small garnets, talc slate with common indurated talc, potstone (ollaris), actinolite, and precious splintery serpentine. The gneiss is traversed with numerous veins of greenstone, varying in thickness from one inch to six feet. This greenstone resembles basalt; but it is more crystalline in its texture, lighter in its colour, and not quite so hard. Common schorl, tourmaline, and precious garnets, occur imbedded in gneiss. It contains veins of lime-stone, accompanied by arsenical pyrites, wolfram, fluor, and quartz, in a firth called Arksut, situated about thirty leagues from the colony of Julianahaab, towards the north-east.

Cryolite. — The same place is remarkable for two thin layers of Cryolite, resting upon gneiss; and it is the only place where this mineral has hitherto been found. One of these layers contains the snow-white, and greyish-white variety, unmixed with any other mineral.

3. *Mica Slate.* — Mica slate is likewise one of the most common rocks in Greenland, and an inseparable companion of gneiss. There are very few instances where they are not found in the vicinity of each other, and frequently in contact. Mica slate forms, in this country, a very extensive series of insulated mountains, which never rise to a considerable height, and appear generally to rest upon gneiss. It is frequently visible on the shores, and the gneiss itself forms also very extensive beds in it at Disko Bay, where the white stone also occurs in beds. The Greenlandish mica slate abounds in mica; it is generally thin-slaty, and only thick-slaty, where the quartz prevails. Sometimes it has an undulating aspect, but when this is the case, it passes into primitive clay slate.

Sodalite, — a New Mineral. A new mineral has been analysed by Dr. Thomson, and Professor Eckeberg, called Sodalite. It is of a pale apple-green, leek-green, greenish-white and pearl-grey colour, partly massive, partly crystallised.

Another New Mineral. — Another mineral, which has not yet been analysed, occurs also with the sodalite; it is of a peach-blossom red, and purple-red colour. On the shore the underlying gneiss is visible in several places. Calcareous

spar and fluor occur in veins, both of which are sometimes coated with a thin crust of *chalcedony*; also *galena* in small veins. Blue *phosphate* of iron, in detached pieces, is found on the shores.

White-Stone. — White stone (weiss-stein), which has lately been determined by Werner, appears to belong to this rock. It presents a white and greyish-white granular appearance, which was formerly supposed to be compact or granular felspar. It is in this country characterised, by very small and minute crystals of garnet, disseminated through the whole mass. Here it is found in layers of inconsiderable extent, resting on mica slate, very seldom on gneiss. It is also found in detached pieces.

4. *Clay-Slate.*— Clay slate is very seldom met with on this coast, and consequently the different beds, which are characteristic of this rock, viz. Flint-slate, Lydian stone, Alum-slate, but rarely occur. Nevertheless, at the mouth of the firth Arksut, it forms two islands of some importance, called Arksut and Ujorbuk. The colour of the slate is ash-grey, and bluish-grey; its fragments present a double cleavage, and it is traversed in all directions by numerous veins of massive, and crystallised quartz, massive hornstone, and sparry iron-ore, of an isabella yellow colour. An extensive bed of flinty slate and Lydian-tone, rests upon it on the east side of the island Ujorbuk.

5. *Porphyry.* — Porphyry is very common in the south of Greenland, from Cape Farewell, to the 64th degree of latitude, but it is generally found towards the interior of the continent, forming insulated rocks. The mass of the porphyry is brownish red, and passes in some places into clay-stone, forming clay-stone porphyry, the crystals then becoming less distinct. Hornstone porphyry, with a few very small crystals of felspar, occurs also in an adjacent firth, called Innugliarbik. This rock rests upon old red sand-stone.

6. *Syenite.* — Syenite, and all the porphyritic rocks, belonging to the primitive and transition trap-formation, are found in great abundance in this country. Hornblende is a mineral which occurs almost every where.

7. *Primitive Trap.* — (Greenstone.) The islands which lie between the 62d and 63d degrees of latitude, present a very complete series of rocks that belong to the primitive trap formation.

8. *Primitive Limestone.*— Primitive limestone of fine granular texture, is found only in beds and rolled pieces, and occurs very seldom in Greenland. Its beds are confined to gneiss

and mica-slate, and it is mingled with minute leaves of silver-white mica, seldom with grains of quartz.

Coal. — On some parts of Disko Island, beds of brown coal occur in floetz-trap. They rest upon yellowish-white coarse-grained sandstone, which is very friable; — large balls of iron pyrites are imbedded in it."

Mr. Gieseke, in Dr. Brewster's Edinburgh Encyclopædia.

NOTE VII. — Page 58.

The following catalogue of Greenlandic plants, is from the pen of Dr. D. J. C. Schreber, to whom Crantz communicated his Herbarium.

Diandria.

Veronica alpina.

Triandria.

Scirpus cæspitosus.
Eriophorum vaginatum.
Agrostis arundinacea, var.
Poa alpina.
Elymus arenarius.

Tetrandria.

Cornus Suecica.
Alchemilla vulgaris, alpina.

Pentandria.

Diapensia lapponica.
Menyanthes trifoliata.
Azalea procumbens.
Campanula rotundifolia.
Viola canina, palustris.
Gentiana lutea.
Ligusticum Scoticum.
Angelica archangelica.
Sibbaldia procumbens.

HEXANDRIA.

Anthericum calyculatum.
Juncus pilosus, var. alp. Fl. lapp. 124.
campestris, var. alp. Fl. lapp. 127.
spicatus.
Rumex digynus.
acetosa.
acetosella.

OCTANDRIA.

Epilobium angustifolium, A. & B. Sp. pl.
latifolium.
Vaccinium uliginosum.
oxycoccus.
Polygonum viviparum.

DECANDRIA.

Ledum palustre.
Andromeda polifolia.
cœrulea.
Pyrola minor
uniflora.
Saxifraga stellaris.
nivalis
rivularis
cæspitosa.
grænlandica.
Stellaria cerastoides.
Arenaria trinervia.
Oxalis acetosella
Lychnis alpina.
Cerastium arvense.
alpinum.
aquaticum.

ICOSANDRIA.

Rubus chamæmorus.
Potentilla aurea.
Comarum palustre.

POLYANDRIA.

Ranunculus nivalis.
acris.
hederacco proximus, Fl. Dan. t. 331.

DIDYNAMIA.

Ajuga pyramidalis.
Thymus Acinos.
Bartsia alpina.
Pedicularis flammea.
lapponica.

TETRADYNAMIA.

Cochlearia grœnlandica.
anglica.
(officinalis ?)
Cardamine pratensis.
Arabis alpina.
Erysimum officinale.

SYNGENESIA.

Leontodon Taraxacum.
Hieracium murarum.
Arnica alpina, montanæ varietas.
Gnaphalium. Oed. Fl. Dan. f. 251.
sylvaticum.

MONŒCIA.

Carex cæspitosa.
Betula Alnus
nana.

DIŒCIA.

Salix myrsinites.
arbuscula, g. Fl. Succ. 886.
herbacea.
glauca.
lapponum.
Empetrum nigrum.
Rhodiola rosea.

CRYPTOGAMIA.

Equisetum arvense.
Asplenium trichomanes.
Polypodium fragile.
lonchitis
dryopteris.
Lycopodium Selago.

Lycopodium annotinum.
alpinum.
Sphagnum palustre.
capillifolium.
alpinum.*
Splachnum urceolatum.
Polytrichum commune.
juniperinum.
piliferum.
alpinum.
Mnium pellucidum.
palustre.
purpureum, ramis brevibus inordinate progredientibus, Dill. Musc. 239. t. 31. f. 8.
aut huic sane proximum.
Bartramia pomiformis
Bryum scoparium.
hypnoides. Fl. Suec. 1003. var. B. E.
sexangulare, (nova species.)
cirrhatum, setis et capsulis brevioribus et pluribus. Dill. Musc. 378.
pilosum, sphagni subulati facie. Dill. Musc. 374. t. 47. f. 34. an?
cæspititium.
Hypnum aduncum.
fluitans, foliis tenuissimis, capsulisexilibus. Dill. Musc. 346.
aquaticum prolixum, foliis ovatis Dill. 289. & 552.
Jungermannia minuta. Dill. Musc. p. 481.
varia.
bicuspidata.
quinquedentata.
trilobata,
ciliaris (Syn. apud Linn. excludantur, Synon. verum hujus speciei est: Lichenastrum scorpioides pulchrum, villosum. Dill. Musc. 481.
Lichen centrifugus, var.
saxatilis.
omphalodes.
fahlunensis.

* This moss, though ranked by Dillenius among the Sphagna, appears rather to belong to his *Brya*.

Lichen islandicus & lichenoides, 111. Dill. B. Lichenoides 112. Dill.
qui coralloides fruticuli specie, fuscum, spinosum. Dill. 112.
qui coralloides tenuissimum nigricans, mundi muliebris instar textum. Dill. 113.
Lichen aphthosus.
flavus. vid, Oed. Fl. Dan. an arcticus Linn.?
croceus.
pyxidatus.
gracilis.
qui coralloides scyphiforme cornutum. Dill. 92.
deformis.
foliaceus. Huds. Fl. Angl. 457.
rangiferinus,
paschalis.
uncialis.
subulatus.
fragilis.
globiferus.
pubescens.
chalybeiformis.
sulphureus, an Usnea 3 Dillt?
coriaceus, lichenoides rugosum durum pullum peltis atris verrucosis. Dill. 220.
nodosus, lichenoides atrum, corii persici instar exasperatum. Dill. 220.
Fucus digitatus.

The following plants are as yet non-descript:

Anemone foliis ternatus, foliolis cuneiformibus apice serratis scapo sub-unifolio, unifloro.

Agrostis panicula coarctata, petalis basi pilosis anteriore medio aristato, arista recta calyce breviore, foliis involuto-subulatis.

Agrostis panicula diffusa, petalis basi pilosis, exteriore medio aristato, arista recta, calyce breviore, foliis planis.

Cerastium alpino proximum, caule minus rigido altiore, foliis pilosis quidem sed viridibus, nec incanis.

Jungermannia surculis procumbentibus, foliolis alternis bifidis lacero-ciliatis, punctatis.

Hypnum erectum et fluitans, foliis oblongis perangustis acutis. Dill. Musc. t. 28. f. 33.

Lichen foliaceus repens lobatus, lobis hemisphæricis, supra lacunosis cinereus, subtus cirrhosus ater, tuberculis marginalibus carnosis pallidis.

Total 150.

NOTE VIII.—Page 76.

There is, perhaps, no subject of Natural History, respecting which more monstrous fictions have been propagated and believed, than the production of the Bernacle, or Tree Goose. It is difficult to conjecture by what singular prepossession our old naturalists could be so far blinded, that instead of instituting an examination of facts, they contented themselves with asserting or defending their different theories of an equivocal generation; either from the froth or slime of the ocean; or the ripe fruits of certain trees growing on the sea-shore; or, according to the more commonly received notion, from the testaceous insect, hence known by the name of *concha anatifera*. And these opinions maintained their hold on the minds of the learned as well as the ignorant, with a tenacity directly proportionate to their absurdity; nor are they even at this day at all uncommon amongst fishermen, and the lower class of sailors. The worthy Bishop of Bergen appears to have been one of the earliest writers who took pains to enquire into the matter, and the following paragraph gives us the result of his investigations.

"This peculiar creature, (the goose-bearing shell,) is of about a finger's length and a half, and an inch broad, and pretty thick; it is brown and spongy, a little curled or shrivelled, like an apple when it is dried; so that at first it may be twice the length. Its neck is tough and hollow, like the fingers of a glove: when it is opened there is nothing to be seen, but some small and fine deep black filaments; these are like bunches of flax all through. The one end of the neck is made fast to the timber, in manner of a sponge; the other, or the end that hangs down, has a double shell, of a light blue colour, and of substance like a muscle-shell, but much less, about the size of an almond, and like it, of a sharp oval figure. When this shell is opened, there is found in it the little creature reported to be a young wild goose. Almost its whole substance, which is composed of small toughish membranes, represents some little crooked dark feathers, squeezed together, their ends running together in a cluster: hence it has been supposed to be of the bird kind. At the extremity of the neck also, there is something that looks like an extremely small bird's head; but one must take the force of imagination to help to make it look so: this I have constantly found on many examinations; and in all my inquiries, I cannot learn that any

one has ever seen any thing more, though there are many who pretend to appeal to witnesses for the fact, that have seen this young goose, as they call it. I will allow that they may have seen in this shell, a living sea-insect, as it certainly is, but nothing else.

"When the duck's egg is opened, the young one is never found like this, consisting of nothing but feathers; they, on ducklings, come afterwards in the place of the down, which appears first; but here is no down, and there seems to be no body, nothing but long, crooked, squeezed-up feathers, with a little point, or small button at the end that may resemble a head, if fancy will have it so, as has been said." Pontopp. vol. ii. p. 53.

Not satisfied, however, with giving his own statement, he cites the authority of Gaspar Schottus, who, in his Physica Curiosa, closes an ample dissertation in disproof of the current fable, with three very formal and rational inductions, amounting to a complete refutation of the contested theory, but which need not be repeated in the present state of zoological knowledge.

NOTE IX. Page 106.

La Peyrère, in his *Relation de Groenland*, written in 1646, gives a curious account of this animal, which was then but little known among naturalists: — "Some years ago, (this is a letter from M. Wormius, great marshal of Denmark, to our author,) being at M. Frise, the Lord Chancellor's house, I took occasion to complain to that great man, of the negligence and want of curiosity of our merchants and seamen that frequented Greenland, in not enquiring into the nature of those animals, the horns whereof they brought in such plenty to us, without giving themselves the trouble of bringing along with them some part of their flesh or skin, for the better discovery of the whole. The Lord Chancellor answered, they are more curious than you imagine; and instantly sent for a great piece of a dried skull, with part of that kind of horn on it, of about four feet long. Being extremely rejoiced to see me hold in my hands so great a rarity, and could scarce sufficiently feast my eyes with the sight of it, as not understanding at first what it was, I entreated my Lord to give me leave to carry it home to my house, to look upon it there at my own leisure, which he readily granted. I found this cranium or skull much like that of the head of a whale, having two holes on the top, and which penetrate to the palate or throat: these two holes, being, doubtless, the two

passages through which this fish spouts up the water it drinks. I took also notice, that what they call the horn, proceeded out of the left side of its jaw. I invited the most curious and ingenious of my auditors to be eye witnessess of so extraordinary a sight in my closet; and among the rest sent for a painter, who, in the presence of all the company, drew the picture of that skull, with the horn, as it really was in figure, and answerable to its bigness according to the original.

"My curiosity stopt not here, but understanding that such another creature had been taken near, and carried into, Iceland, I went to the Bishop of Hola, whose name was Thorlac Schalonius, and had been formerly my disciple at Copenhagen, to send me the draft of that animal, which he did accordingly; and sent me word at the same time, that the Icelanders called it *Narhual*, that is a whale that feeds upon dead carcases; for *hual* signifies a whale, and *nara*, a dead carcase. 'Twas really the picture of a true fish, like a whale."

After remarking on the equivocal name of *unicorn*, "which belongs to several animals, as to the onyx and Indian ass, mentioned by Aristotle, and to that wild beast described by Pliny to have the head of a stag, the body of a horse, and the feet solid, all of a piece, like the elephant, being, besides, of a wonderful swiftness and strength;" he goes on to decide, that the singular weapon of this animal is not a horn, "growing in the forehead by an adjunction, or natural union with the bone, but a tooth, being sunk into the gum, *per gomphosim*, as a wedge or nail that enters the substance.

"The Danes," he continues, "are of opinion, (as most certainly it is,) that all those kind of horns found in Muscovy, Germany, Italy, and France, came originally out of Denmark, where this sort of merchandise was very frequent, whilst there was a passage between Norway and Old Greenland, and that they constantly crossed the seas from one coast to the other. The Danes, who brought them to sale in foreign countries, had no reason to declare them to be fishes' teeth, but sold them for unicorns' horns, to sell them at the higher rate; this they have not only practised formerly, but also continue to do it to this day. 'Tis not long since, that the company of New Greenland, at Copenhagen, sent one of their agents into Muscovy, with several great pieces of these kind of horns, and amongst the rest, one end of a considerable bigness, to sell it to the Great Duke of Muscovy. The Great Duke being extremely taken with the beauty thereof, he showed it to his physician, who, understanding the matter, told him 'twas nothing but the tooth of a fish; so that this agent returned to Copenhagen without selling his

commodity. After his return, giving an account of the success of his journey, he exclaimed against the physician who spoiled his market by disgracing his commodities. 'Thou art a half-headed fellow,' replied one of the Directors of the Company, 'Why didst thou not offer two or three hundred ducats to the physician, to persuade him that they were the horns of the unicorn?'"

NOTE X. Page 122.

To those of our readers, who wish to feed their love of the marvellous with a few of the fanciful creations of our forefathers, are desirous of a subject for the exercise of innocent ridicule, or, perhaps, have some small share of belief in certain prodigies still lurking within them, the following extracts from Pontoppidan may not be unamusing. They are principally relative to those very poetical and illustrious monsters, the Merman and the Mermaid. We should not trouble any one who may open this book, by repeating the recital of appearances, the reality of which has long since ceased to be a subject of doubt or discussion, had we not been much struck with the confidence with which the worthy bishop, doubtless a man well furnished with credulity, maintains his point; the various and circumstantial examples which he brings forward to confirm it; and lastly, the names of individuals, whom he mentions as having seen the creatures alluded to, and who, we may suppose, were well known at the time when he published his work. Without, therefore, suffering our fancy so far to get the better of our reason, as to conjure up prophets and fair-haired songstresses from the cold recesses of the ocean, we may be permitted to hint, that possibly some tenant of the sea which approaches nearer to the human form divine, than any which are to be found in the catalogues of naturalists, may have imposed upon the senses of fishermen and others. We think it not unlikely that the progress of discovery, and the growing spirit of research may sooner or later throw some light on the rise of this rather interesting fable. The same remark holds with respect to the Kraken, the stupendous leviathan of Norwegian fishermen; though with regard to this last, actual observation, in some measure, warrants the supposition, that eddies, converging currents, and whirlpools, so frequent on the coast of Norway, may have torn large masses of mud, sea weed, and other submarine vegetables from the bottom of the sea, and exposed them to view, at a considerable elevation above the surface, in shapes so formidable, as to

strike terror into the minds of vulgar spectators. But we are trespassing on the room intended for our extracts. After mentioning several absurd stories, Pontoppidan proceeds, "However, while we have no ground to believe all these fables, yet, as to the existence of the creature, we may safely give our assent to it, provided that it is not improbable, or impossible, in the nature of things, and that there is no want of confirmation from creditable witnesses, and such as are not to be rejected. 'Vera est vulgi opinio, quicquid nascatur in parte naturæ ulla, et in mari esse, præterque multa, quæ nusquam alibi.' Si vera fatebor, quâ historicus naturalis, ex scientiæ principiis nullum characterem hactenus eruere potui, unde homo a simia internascatur. Dantur enim alicubi terrarum simiæ, minus quam homo pilosæ, erecto corpore, binis æque ac ille pedibus incedentes, et pedum et manuum ministerio, humanam referentes speciem, prorsus ut eosdem pro hominum quopiam genere venditarint peregrinatorum rudiores." Linn. in præfat. Faun. Suec. p. 2.

"If we will not allow our Norwegian Hastromber, the honourable name of mer-man, we may very well call it the sea-ape. Odoard Dapper, in his Description of Africa, p. 584. says: "That in the sea of Angola, mermaids are frequently caught, "which resemble the human species. They are taken in nets, "and killed by the negroes, and are heard to shriek and cry "like women. The inhabitants on that coast eat their flesh, "being very fond of it, which they say is much like pork in "taste. The ribs of these animals are reckoned a good styptic; "and a certain bone in the head, which separates the brain, "is said to be a powerful remedy against the stone." I shall add to all this, a passage relating to the subject, which may be met with under the article "Meermann," in the Universal Dictionary of Arts and Sciences, published by John Theodore Jablonsky, p. 658. "Meer-man, Meer-weib, Meer-minne, that is sea-man, "sea-maid, or siren, called by the Indians Ambisiangulo, other-"wise Pesiengoni, and by the Portuguese Pezz-muger, is a fish "found in the seas, and in some rivers of South Africa and "India, and in the Philippine and Molucca Islands, Brazil, "North America, and Europe, in the North Sea. The length "of this fish is eight spans, its head is oval, and the face re-"sembles that of a man. It has a high forehead, little eyes, a "flat nose, and large mouth, but has no chin, nor ears. It "has two arms, which are short, but without joints or elbows, "with hands or paws, to each of which there are four long "fingers, (which are not very flexible,) connected to each other "by a membrane, like that of the foot of a goose. Their sex "is distinguished by the parts of generation. The females have

" breasts to suckle their offspring; so that the upper part of " their body resembles that of the human species, and the lower " part that of a fish. Their skin is of a brownish-grey colour, " and their intestines are like those of a hog. Their flesh is as " fat as pork, particularly the upper part of their bodies; and " this is a favourite dish with the Indians, broiled upon a grid- " iron. It makes a lamentable cry, when drawn out of the " water. There is a bone in the head, dividing the brain, which " the Portuguese powder, and say it is of great service in the stone " and gravel. Accounts of the catching of these sea or mer- " men in Europe, are delivered by Wormius, Guiccardino, " Mexia, Sybold, Erasmus, Franciscus, and others."

" Athanasius Kircher, gives this description of the Pezz-muger, in his Third Book de Magrete, p. vi. c. 1. § 6. p. 675. " Capi- " tur certis temporibus anni in mari orientale Indiæ, ad insulas " Vissayas, quas insulas Pictorum vocant, sub Hispanorum " dominio piscis quidam ἀνθρωπομορφος, i. e. humana prorsus " figura, quem ideo Pezze Muger vocant, ab indigenis Duyor. " Caput habet rotundum, nulla colli intercapedine trunci com- " pactum, extremæ aurium fibræ, quæ et auriculæ nomi- " nantur, ex cartilaginea carne eleganter vestitæ, quarum inte- " rior pars, amplissimis formata anfractibus, veram hominis refert " aurem, oculos suis ornatos palpebris, situque et colore non " piscis sed hominis judicares. Naso nonnihil aberrat, malam " inter utramque non usquequaque eminet, sed levi tramite bi- " partitur; sub eo vero labra magnitudine specieque nostris simil- " lima, dentium, non qualia insunt piscium generi serratilium, " sed planorum et candidissimorum, continua series. Pectus " alba cute contectum, hinc atque hinc paulo latius quam pro " corpore, in mammas extuberans, neque eas ut fœminis pendulas, " sed quales virginibus globosas, plenas lactis candidissimi. " Brachia non longa sed lata, ad natandum apta, nullis tamen " ipsa cubitis, ulnis, manibus articulisque distincta. In admi- " nistris sobolis procreandæ membris in utroque sexu nulla ab " humanis distinctio. Post hæc in piscem cauda desinit."

" Upon these authorities I may say, that if the existence of the European mer-men be called in question, it must pro- ceed entirely from the fabulous stories usually mixed with the truth. Here, in the diocese of Bergen, as well as in the manor of Nordland, are several hundred persons of credit, who affirm with the strongest assurances, that they have seen this kind of creature, sometimes at a distance, and at other times quite close to their boats, standing upright, and formed like a human creature down to the middle; the rest they could not see. I have spoken with many of these people, all eye- witnesses to the existence of this creature; and I have taken

all possible precautions in examining them strictly on the subject. The result was, that I found them all to agree in every particular of their account, which answers to the description lately published by Jablonsky and Kircher, so far as they could judge by the sight of them only, at a small distance. But of those who have handled them, I have not been able to find more than one person of credit who could vouch it for truth. As I may safely give credit to this person, namely, the Reverend Mr. Peter Angel, who is still living, and minister of the parish of Vand Elvens Gield, on Sundmoer, I shall relate what he assured me of last year, when I was on my visitation journey. He says that in the year 1719, he, being then about twenty years old, along with several other inhabitants of Alstahoug, in Nordland, saw what is called a mer-man, lying dead on a point of land near the sea, which had been cast on shore by the waves, along with several seals, and other dead fish. The length of this creature was much greater than what has been mentioned of any before, namely three fathoms. It was of a dark-grey colour all over: in the lower part it was like a fish, and had a tail like that of a porpoise. The face resembled that of a man, with a mouth, forehead, eyes, &c. The nose was flat, and, as it were, pressed down to the face, in which the nostrils have ever been very visible. The breast was not far from the head; the arms seemed to hang to the side, to which they were joined by a thin skin, or membrane. The hands were, to appearance, like the paws of a seal. The back of this creature was very fat, and a great part of it was cut off, which, with the liver, yield a large quantity of train-oil. That this creature, which is reckoned among the whale kind, is a fish of prey, and lives upon the smaller sort, may be concluded from what Mr. Luke Debes, relates in his description of Faroe. He tells us, that they have there seen a mermaid, with a fish in her hand.

"Tirmoder Torfaeus relates, "that several mer-men, along with other monsters, were seen at one time on the coast of Iceland. See his Hist. of Norw. t. iv. p. 416. and there refers to his account of Greenland. I am sorry that I have not the work at hand, for those who would be curious to know more of this matter: but in the place just quoted, he speaks thus: 'Sirenes propter Australia Islandiæ promontoria, Sudrines appellata, pluraque alia monstra visa, et in his illud, quod Hafstrambe appellatur (de quo videri potest Grænlandia nostra caput xiii.) nautis, qui in Islandiam vento retroacti sunt, observatum.'"

"In the year 1624, a mer-man, thirty-six feet long, was taken

in the Adriatic sea; according to Henry Seebald's Breviar. Histor. to this the lastmentioned was but a dwarf. As to their form, it is said that some have a skin over their head like a monk's hood, which perhaps serves them for the same purposes, as does the skinny hood which some species of seals have on their heads, which, from thence, are called klapmutzser, as has been observed in the description of that creature. Olaus Magnus speaks in lib. xxi. ch. 1. of several monsters in the North Sea, all of which resemble the human kind, with a monk's hood on the head. His words are: 'Cucullati hominis forma.' He adds that if any of this company be caught, a number of them set up a howl, put themselves in violent agitations, and oblige the fishermen to set the prisoner at liberty. But this last article is a mere romance, to which this too credulous author in this, as well as in other particulars, has given too much credit without sufficient grounds. Of this merman with a hood, Rondoletius writes thus in Gesner. de Aquatil. B. 4. which I ought not to omit. 'Inter marina monstra est et illud, quod nostra ætate in Norvegia captum est, mari procelloso. Id quotquot viderunt, statim monachi nomen imposuerunt. Humana facie esse videbatur, sed rustica et agrestis, capite raso et lævi. Humeros contigebat veluti monachorum nostrorum cucullus. Pinnas duas longas pro bracchiis habebat. Pars infima in caudam longam desinebat. Media multa erat latior, sagi militaris figura. Hanc effigiem mihi dono dedit illustrissima Margareta Navarræ regina, &c. Ea a viro nobili effigiem hanc acceperat, qui similem ad Carolum V. imperatorem, in Hispania tunc agentem deferebat. Illæ reginæ affirmavit, se monstrum hoc in Norvegia captum vidisse, post gravissimas tempestates undis et fluctibus in littus ejectum, locumque designabat, *die Zundt* juxta oppidum *den Ellepoch*. Ejusdem monstri picturam mihi ostendit Gisbertus medicus ex eadem Norvegia Romam ad se missam, quæ pictura nonnihil a mea differebat. Quare, ut dicam quod sentio, quædam præter rei veritatem a pictoribus addita esse puto, ut res mirabilior haberetur, crediderim igitur monstrum hoc humanam formam eo modo referre, quæ pars capitis ranarum, quia post caput partes erant utrinque elatæ hominum omoplatis respondentes; musculisque movebantur, qui cuculli monachorum figuram repræsentant, qualis in nobis spectatur. Secundus musculus omoplatas movens, scilicet eas partim ad se attrahens, partim attollens, cuculli monachorum formam aptissime refereus. Ad hæc, non squamis sed cute dura rugosa veluti cortice contectum putarim, quemadmodum de leone marino dicemus.'"

"The latest instance I have learned of a mer-man's being

seen, was in Denmark; and this stands attested so well, that it deserves to be quoted after all the others. I shall give it as it is found in Ol. Bang's Collections, p. 528., and it is as follows: 'A. D. 1723, on the 20th September, the burgo-master, A. Bussaeus, of Elsineur, had, by his majesty's orders, three ferrymen, inhabitants of Elsineur, examined before the privy-councillor Frid von Gram. Their names were Peter Gunnersen, aged 38, Nicholas Jensen, aged 31, his brother, and Jeppe Jensen Gissen, aged 29. These men were examined about a sea monster, which they affirmed they had seen a few weeks before, and concerning which their depositions were taken upon their respective oaths, in order to corroborate their testimony.

"It appeared that about two months before, the aforesaid ferrymen were towing a ship just arrived from the Baltic, and which was then under full sail, when they were at a considerable distance from land, being in the mid-way between Hveen and Saedland, where they could see the church steeples of Landscrene. The calm weather induced them to lie by a little, and at the distance of an English mile, or about one quarter of a Norway mile, they observed something floating on the water like a dead body, which made them row to it, that they might see what it was. When they first came within seven or eight fathoms, it still appeared as at first, for it had not stirred, but at that instant it sunk, and came up again almost immediately in the same place. Upon this, out of fear, they lay still, and then let the boat float, that they might the better examine the monster, which, by the help of the current, came nearer and nearer to them. He turned his face, and stared at the men, which gave them a good opportunity of examining him narrowly; he stood in the same place for half a quarter of an hour, and was seen above the water down to his breast; at last they grew apprehensive of some danger, and began to retire; upon which the monster blew up his cheeks, and made a kind of a roaring noise, and then dived under the water, so that they did not see him any more.

"In regard to his form and shape, they say he appeared to them like an old man, strong-limbed, and with broad shoulders, but his arms they could not see. His head was small in proportion to his body, and had short curled black hair, which did not reach below his ears; his eyes lay deep in his head, and he had a meagre and pinched face, with a black beard that looked as if it had been cut. His skin was coarse, and very full of hair. Peter Gunnersen related, (what the others did not observe,) that this mer-man was about the body and downwards, quite pointed like a fish. This same Peter Gunnersen likewise deposed, that

about twenty years before, as he was in a boat, near Kulleor (the place where he was born) he saw a mer-maid with long hair, and large breasts. These ferrymen further deposed, that the weather was very fine and quite calm during the same day, and for several days following. That this examination was taken in the most regular and exact manner, attests, ut supra,

"*Andrew Bussæus.*"

"Whilst I am writing this, the Reverend Mr. Hans Strom informs me, that in Bergen Sund, or Sundmoer, there has also this summer been seen a mer-man, of the common form: however, in all these accounts, probably fancy has exaggerated a little.

"The before-mentioned marmaele, or as some call it marmete, belongs also to this class of the mer-maid: though I shall not call it the mer-man's offspring, yet one might give it this name, till properly enquired into. This creature is often caught on hooks, and is well known to most of the fishermen. They are of different sizes; some are of the bigness of an infant, half a year old; others of one of a year; and others again as big as a child of three years old: of this last size there was one taken lately in Selloe Sogn: the upper part was like a child, but the rest like a fish; those who caught it, threw it directly into the sea. Sometimes the peasants take them home to their houses, and, as they say, give them milk, which they drink. Those who venture to take them home do it in hopes of having something foretold by them; but they do not keep them above twenty-four hours, superstitiously thinking themselves bound to row out to sea, and put them down in the same place where they found them." Pontopp. Nat. Hist. of Norway, part II. p. 188-194.

In the following chapter of the work we have just quoted, the author proceeds to substantiate the opinion of Pliny relative to the individual correspondence of some of the inhabitants of the ocean to those of the land, by adducing another example, namely, the Sea-serpent, a creature proportionate in size to the extent of its domain. Many of our readers are probably already tired of what may appear to them idle fictions, and we should not trouble them with any more, did not the evidence of the writer above quoted, appear worthy of being more generally known and examined. Besides, he enters upon his discussion with such spirit and interest, manages his enquiries with such precision, we had almost said philosophical correctness, that he really induces some degree of participation in his zeal for maintaining the reality of an existence, which, in itself, is but barely probable. We shall be as brief as possible, and as his remarks are very long, only a small portion of them can be inserted here.

" The Söe Ormen, or Sea-snake, serpens marinus magnus, called by some in this country Aale-Tust, is a wonderful and terrible sea-monster, which extremely deserves to be taken notice of by those who are curious to look into the extraordinary works of the great Creator. But here I must again, as I did of the mer-man, give the reader proper authorities for the real existence of this creature, before I come to treat of its nature and properties. This creature, particularly in the North Sea, continually keeps himself in the bottom of the sea, excepting in the months of July and August, which is their spawning time; and then they come to the surface in calm weather, but plunge into the water again so soon as the wind raises the least wave. If it were not for this regulation, thus ordained by the wise Creator for the safety of mankind, the reality of this snake's existence would be less questioned than it is at present, even here in Norway; though our coast is the only place in Europe visited by this terrible creature. This makes many persons that are enemies to credulity, entertain so much the greater doubt about it. I have questioned its existence myself, till that suspicion was removed by full and sufficient evidence from creditable and experienced fishermen and sailors in Norway; of which there are hundreds who can testify that they have annually seen them. All those persons agree very well in the general description: and others who acknowledge that they only know it by report, or by what their neighbours have told them, still relate the same particulars.

" In all my enquiry about these affairs, I have hardly spoken with any intelligent person born in the manor of Nordland, who was not able to give a pertinent answer, and strong assurances of the existence of this fish: and some of our North traders, that come here every year with their merchandise, think it a very strange question, when they are seriously asked, whether there be any such creature; they think it as ridiculous as if the question was put to them, whether there be such fish as the eel or cod.

" Last winter I fell by chance in conversation on this subject with Captain Lawrence de Ferry, now commander in this place, who said, that he had doubted a great while, whether there was any such creature, till he had an opportunity of being fully convinced by ocular demonstration, in the year 1746. Though I had nothing material to object, still he was pleased, as a farther confirmation of what he advanced, to bring before the magistrates in the city of Bergen, two sea-faring men, who were with him in the boat when he shot one of these monsters, and

saw the snake, as well as the blood, which discoloured the water. *

* * * * *

" Governor Benstrup affirms, that he saw the same creature a few years ago, and that he drew a sketch of the Sea-snake, which I wish I had to communicate to the public. I have, however, inserted a draught which I was favored with by the above-mentioned clergymen, Mr. Hans Strom, which he has caused to be carefully made, under his own inspection. This agrees in every particular with the description of this monster, given by two of his neighbours at Herroe, namely, Messrs. Rentz and Tuchsen, and of which they had been eye-witnesses. I might mention to the same purpose, many more persons of of equal credit and reputation. Another drawing also, which appears to be more distinct, with regard to the form of this creature, was taken from the reverend Mr. Egede's journal of the Greenland mission, where the account stands thus in p. 6. 'On the 6th of July 1734, there appeared a very large and frightful sea-monster, which raised itself up so high out of the water, that its head reached above our maintop. It had a long sharp snout, and spouted water like a whale, and very broad paws. The body seemed to be covered with scales, and the skin was uneven and wrinkled, and the lower part was formed like a snake.

'After some time, the creature plunged back again into the water, and then turned its tail up above the surface a whole ship-length from the head. The following evening we had very bad weather.' In the New Survey of Old Greenland, p. 48. the above-mentioned Mr. Egede speaks of the same monster, with this addition, that the body was full as thick and big in circumference as the ship he sailed in. Mr. Bing, one of the missionaries, that took a drawing of it, informed his brother-in-law, Mr. Sylow, minister of Hougs in this diocese, that this creature's eyes seemed red, and like burning fire; all which makes it appear that it was not the common Sea-snake. Though one cannot have an opportunity of taking the dimensions of this creature, yet all that have seen it are unanimous in affirming, as far as they can judge at a distance, it appears to be of the length of a cable, i. e. 100 fathoms, or 600 English feet; that it lies on the surface of the water (when it is very calm) in many folds, and that there are in a line with the head, some small parts of the back to be seen above the surface of the water when it moves or bends. Those at a distance appear like so many casks or hogsheads

* A particular account of this incident and the shape of the creature is here given, which is too long for insertion.

floating in a line, with a considerable distance between each of them. Mr. Tuchsen of Herroe, whom I mentioned above, is the only person, of the many correspondents I have, that informs me he has observed the difference between the body and the tail of this creature as to thickness.

" It appears that this creature does not, like the eel or land-snake, taper gradually to a point, but the body, which looks to be as big as two hogsheads, grows remarkably small at once, just where the tail begins. The head in all the kinds has a high and broad forehead, but in some a pointed snout, though in others that is flat, like that of a cow or a horse, with large nostrils and several stiff hairs standing out on each side, like whiskers.

" It is supposed that Sea-snakes have a very quick smell, which we may conclude from this, that they are observed to fly from the smell of castor. Upon this account, those that go out on Stor-Eggen to fish in the summer, always provide themselves with these animals. They add, that the eyes of this creature are very large, and of a blue colour, and look like a couple of bright pewter plates. The whole animal is of a dark brown colour, but it is speckled and variegated with light streaks or spots, that shine like tortoise-shell. It is of a darker hue about the eyes and mouth than elsewhere, and appears in that part a good deal like those horses, which we call Moors-heads.

" I do not find by my correspondents, that they spout the water out of their nostrils like the whale, only in that one instance related by Mr. Egede, as mentioned above; but when it approaches, it puts the water in agitation, and makes it run like the current at a mill. Those on our coast differ likewise from the Greenland Sea-snakes, with regard to the skin, which is as smooth as glass, and has not the least wrinkle, but about the neck, where there is a kind of a mane, which looks like a parcel of sea-weeds hanging down to the water. Some say it annually sheds its skin like the land-snake; and it is affirmed, that a few years since there was to be seen at Kopperwiig, a cover for a table made of the skin of one of these snakes. This raised my curiosity to know the truth, and, accordingly, I wrote thither for proper information, desiring the favor of a slip of it, by way of specimen; but it seems there was no such thing, at least not at that time. Besides, a man that came from the place told me that he had never heard any thing of it. This person, however, informed me, that in the year 1720, a Sea-snake had lain a whole week in a creek near that place; that it came there at high water, through a narrow channel about seven or eight feet broad, but went away, after lying there a whole week, as mentioned above, and left behind it a skin, which this man, whose name was Thorlack Thorlacksen, declares he saw and handled. This skin lay with one end under water in the creek,

and, therefore, how long it was, nobody could tell. It seems, the creek within that channel is several fathoms deep, and it lay stretched out a great way; but the other end of the slough had been driven ashore by the tide, where it lay a long time for every one to examine. He said it did not seem fit to make a covering for a table, unless it had been properly dressed, or some other way prepared for that purpose; for it was not hard and compact like a skin, but rather of a soft and slimy consistence; something like the maneto, before described. Even the body is said to be of the same nature; as I am informed by those who, by accident, once caught a young one, and laid it upon the deck of the ship. It died instantly, though nobody dared to go near it even then, till they were obliged to throw it overboard, by the insupportable stink which was caused by the soft and viscid slime to which it was at length dissolved by the action of the wind. We have the same account from Pere Labat, of a small Sea-serpent, about four feet long, and as thick as a man's arm. His words are, 'Nous l'attachâmes au mât après l'avoir assommé pour voir quelle figure il auroit le lendemain. Nous connûmes combien notre bonheur avoit été grand, de n'avoir point touché à ce poisson, qui sans doute nous auroit empoisonnez. Car nous trouvâmes le matin qu'il s'etoit entierement dessous en une eau verdâtre and puante, qui avoit coulé sur le pont, sans qu'il restât presque autre chose que la peau de la reste, quoiqu'il nous eut paru le soir fort ferme et fort bon. Nous conclûmes, ou que ce poisson étoit empoissoné par accident, ou que sa nature ce n'étoit qu'un composé de venin."

"It seems the wind is so destructive to this creature, that, as has been observed before, it is never seen on the surface of the water, but in the greatest calm, and the least gust of wind drives it immediately to the bottom again.

* * * * *

"The supposition that the Sea-snake answers the description of the leviathan better than any other animal yet known; and may be understood by the leviathan, or crooked-serpent, Is. xxvii. 1. that shall slay the dragon that is in the sea; or that it may be the long-serpent mentioned in Job xxvi. 13.: is not without some foundation. That it is the piercing-serpent, or boom-serpent, serpens vectis, according to some authors, is not improbable; for they often lie stretched out before a creek, like a boom, to block up the passage. If Bochart had had any knowledge of this creature, which is very little known any where but in the north, he probably would not have taken the whale for the leviathan. 'Cetum Hebræi iisdem nominibus appellant quibus draconem, nempe Thannin et Leviathan, aut ob for-

mæ similitudinem, aut ratione molis, et quia Cetus in aquatilibus tantum præstat, quantum in reptilibus præstant virtute dracones.' Hierozoic. lib. I. cap. vi. p. 45. The similitude of shape, which writers urge between the whale and the dragon, is what I cannot find out; nor can I discover how this author (whom I otherwise esteem as one of the most learned men, the world ever produced) comes to say, in the same place, p. 50., 'Balaenam multi volunt ideo dici נחש ברח Serpentem vectis, Isaiah xxvii. 1.; quod ab uno maris extremo ad alterum, vectis instar, attingat.' This does not at all agree with the whale, which is usually but 50, 70, or most 80 feet in length; at least not near so well as with the Sea-snake."

It will be recollected that Crantz mentions a certain simile of a Danish poet, called Peter Dass, concerning the Sea-serpent, The whole passage is to be found in Pontoppidan, and we shall transcribe it here, together with a literal translation, for the amusement of the curious.

Om Soe-ormen veed jeg ey nogen Beskeed,
Jeg haver ham aldrig med Öynene seed,
Begierer ey heller den Aere;
Dog kiender jeg mange, som mig have sagt,
Hvis Ord jeg og giver sandfaerdelig magt
Han maae forfaerdelig vaere.

Naar Julius gaaer i sin fyrstelig Stads
Og Phœbus omvanker i Luftens Pallads
Da lader det Dyr sig fornemme,
Der siges, han er af en saadan Natur
Hvad Baad han fornemmer det skadelig Diur,
Han tiendes efter mon svoemme.

Umaadelig sluttes hans Storlighed og,
Det vel af Forfarenhed vises kand nok;
Thi de hannen komme i moede
Fortælle, han ligger i Laengden udstrakt,
Som hundrede Laes var paa Havet udlagt,
Som Möding paa Ageren oede.

TRANSLATED.

Of the sea-serpent I also know some account
Never did I see him with my eyes,
Nor do I covet that honour,
Yet according to what several have told me,
To whose words I wholly assent,
He must be terrible.

When July passes in its princely state
And Phœbus walks round in the palace of the air,
Then this animal is perceived,
He is said to be of such a nature
Whatever boat he espies, that noxious animal,
He swims silently after it.

Unmeasurable his greatness is conceived,
And this may well be shown from experience,
For those who meet with him
Relate that he lies stretched out at full length,
As if a hundred loads were laid out upon the ocean
Like manure on the barren field.

So much concerning the Sea-snake. We now leave our readers to determine the degree of authority which ought to attach to the evidence of Pontoppidan. In our opinion neither the jeers of self-authorized critics, nor the allegation, that no such monsters now present themselves to the notice of mankind, are sufficient to overthrow the reality of facts, the authenticity of which is properly substantiated by living witnesses. What unknown creatures the ocean may nourish in its womb, "that great and wide sea, wherein are things creeping innumerable, both small and great beasts," it is impossible to know, till its bottom be exposed, and "the secrets of the hoary deèp" laid open to our view, so that we have no need to be incredulous concerning any appearance by chance exhibited on its surface. 'Were it possible' says our author, 'for our sight, to penetrate through the thick medium of water, as we can through air, we should see wonderful objects, according to the accounts of divers, who are employed in recovering wrecked goods. Were it possible that the sea could be drained of its waters, what incredible numbers, what infinite variety of sea monsters would exhibit themselves to our view, which are at present entirely unknown.' To the objection urged by many, that the Sea-snake has never been seen any where but on the coast of Norway, we will allow Pontoppidan to answer in his own words. "This objection requires no other answer, when the thing is confirmed by unquestionable evidence, than that the Lord of nature disposes of the abodes of his various creatures, in different parts of the globe, according to his wise purposes and designs: the reason of his proceedings cannot, nor ought to be comprehended by us. Why does not the rein deer thrive in any other climate, except on the cold

and bleak mountains of the north? Why does the enormous whale keep only in those icy regions that are contiguous to the Pole? Or, why are the Indies and Egypt, the only places where the crocodile exhibits his hideous form, and terrifies the unwary traveller? No other reason can be assigned but this, namely, because the wise Creator has thought fit that it should be so; and whatever he wills is right, and ordered for the best."

We would only just add, that Mr. Holm, at present residing in Fulnec, says that he once spoke with a Swede, called Ostergreen, who was engaged in the abortive attempt to convert the natives of Lapland, and who affirmed that he had seen the Sea-snake on the shore of that country, without however giving any description of it.

In his account of the Kraken, Pontoppidan coincides in every particular with Crantz, and farther spends a great deal of ingenuity in attempting to prove, that this monster is of the same genus as the polypus or star-fish, creatures which, as they differ from other animals in most respects, may also exceed them in the variety of their growth. After minutely describing its appearance, he says: "This animal has another strange property, known by the experience of many old fishermen. They observe that for some months the kraken or krabben, is continually eating, and in other months he always voids his excrements. During this evacuation the surface of the water is coloured with the excrement, and appears quite thick and turbid. This muddiness is said to be very agreeable to the smell or taste of other fishes, or to both; that they gather together from all parts to it, and keep for that purpose exactly over the kraken: he then opens his arms, or horns, siezes and swallows his welcome guests, and converts them in due time, by digestion, into a bait for other fishes of the same kind."

* * * * * * * .

"The kraken has never been known to do any great harm, except they have taken away the lives of those who consequently could not bring the tidings. I have never heard but one instance mentioned, which happened a few years ago near Friedrichstad, in the diocese of Aggerhuus. They say that two fishermen accidentally and to their great surprise, fell into such a spot on the water, as has been before described, full of a thick slime, almost like a morass. They immediately strove to get out of this place, but they had not time to turn quick enough to save themselves from one of the kraken's horns, which crushed the head of the boat, so that it was with difficulty they saved their lives on the wreck, though the weather was as calm as possible: for these monsters, like the Sea-snake, never appear at other times.

"Mr. Luke Debes, in his description of Faroe, speaks of certain islands which suddenly appear, and as suddenly vanish. This was a thing no body could comprehend; so that one ought not to wonder at the common people, and even those that were a degree above them, for looking upon these moving islands to be inhabited by evil spirits, which appeared sometimes in such places where the seamen, by daily experience, knew very well that there was no such thing as a rock, much less an island; but however, they often found something at sea, which had the appearance of land, and consequently were confounded, made false reckonings, were taken out of their course, and brought into the greatest inconveniences. See Everh. Harpelii Mund. Mirab. tome I. lib. iv. cap. 20, 21. Many seafaring people give accounts of such appearances of land, and their suddenly vanishing away, and particularly here in the north sea. These islands, in the boisterous ocean, cannot be imagined to be of the nature of those real floating islands, that are seen on fresh and stagnant waters; and which I have observed, P. I. ch. 3., are found here in Norway, and in other places. These could not possibly hold or stand against the violence of the waves in the ocean, which break the largest vessels; and therefore our sailors have concluded that this delusion could come from no other than that great deceiver the devil. But according to the laws of truth, we ought not to charge this apostate spirit without a cause. I rather think that the devil, who so suddenly makes and unmakes these floating islands, is the kraken, which some sea-faring people call soe-draulen, *i. e.* soe-trolden, sea-mischief. What confirms me in this belief, is the following occurrence, quoted by that worthy Swedish physician, Dr. Urban Hierne, in his short Introduction to an Enquiry into the Ores and Minerals of that Country, p. 9º., from Baron Charles Grippenhielm. The quotation is as follows: 'Amongst the rocks about Stockholm there is sometimes seen a certain tract of land, which at other times disappears, and is seen again in another place. Buraeus has called it an island, in his map. The peasants, who call it Gummar's-ore, say that it is not always seen, and that it lies out in the open sea, but I could never find it. One Sunday, when I was out among the rocks, sounding the coast, it happened that in one place I saw something like three points of land in the sea, which surprised me a little, and I thought that I had inadvertently passed over them before. Upon this, I called to a peasant to enquire for Gummar's ore, but when we came, we could see nothing of it; on which the peasant said, all was well, and that this prognosticated a storm, or a great quantity of fish,' &c. So far Grippenhielm. Now who is it

that cannot discover, at first sight, that this visible and invisible Gummar's ore, with its points, and prognostications of fish, cannot possibly be any thing but the kraken, krabben, or soe-horven, improperly placed in the map by Buraeus as an island.

* * * * *

"Even Pliny, in his time, had heard some obscure account of such a sea-animal as is here treated of. This may be concluded from his words in lib. ix. cap. iv. 'Maximum animal in Indico mari Pristis, et balæna est, in Gallico oceano Physeter, ingentis columnæ modo se attollens, altiorque navium velis diluviem quandam eructans. In Gaditano oceano Arbor, in tantum vastis dispensa ramis, ut ex ea causa fretum nunquam intrasse credatur. Apparent et Rotæ appellatæ a similitudine, quaternis distinctæ radiis, modiolos eorum oculis duobus utrinque claudentibus Ionis.' * * * * Both these descriptions confirm my former suppositions, namely, that this sea-animal belongs to the polype or star-fish species, which have been particularly described in the preceding chapter. * * * * * * * * However this may be, it remains an unquestionable truth, that certain kinds of polypi grow to a monstrous size. Athanas. Kircher says, in his Mund. Subterran. P. I. p. 99. that in the Sicilian seas, there is found a kind of star-fish, which have ten rays, or branches, and a body as big as that of a man: but this bears no proportion to the bigness of a whale, which Athenæus in lib. xiii. cap. vi., attributes to some of them. Pliny, lib. ix. cap. xxx. speaks of a sort of polypus of a monstrous size, by the name of Ozæna, because it diffuses a strong smell; for which reason other fish are apt to follow them. This singularity agrees exactly with what has been said already about the Norwegian krake, 'mire omnibus marinis expetentibus odorem.' Concerning the said polypus, Pliny relates in the same place, according to the account he had received of L. Lucullus, the proconsul of Bætica, several strange stories about their size and strength; as that they lay along the coast, where they would steal the merchants' goods, and drag them away with their long claws; so that they were obliged to set dogs upon them; that these animals could not bear the strong smell, and were also severely handled by these creatures; and that it was with great difficulty they killed them with iron forks, &c. 'Namque afflatu terribili canes agebat, nunc extremis crinibus flagellatos, nunc robustioribus brachiis, clavorum modo incussos, ægreque multis tridentibus confici potuit." — But enough of krakens.

NOTE XI. — Page 144.

The following more circumstantial account of the manner of hunting seals used by European sailors is extracted from Pontoppidan, and may perhaps not be unacceptable to our readers.

"Our Bergen seamen, who every year, in the month of March, sail from hence to Jan Mayen island, or to the eastern side of Greenland, in large ships, generally lie there till Midsummer-day, and then proceed in their sloops and boats, between the large flakes of ice, upon which the seals lie sleeping by hundreds, and destroy the greatest part of them. In their republic they make this cautious regulation, that one of them must stand centinel; on these occasions, while the rest sleep, and with a kind of noise, like the hoarse barking of a dog, he wakes them, when either the white bear, who prowls about the ice, or any other enemy, approaches. These people, therefore, come upon them suddenly, and with what they call a dollstock, which has a thick iron ring and an iron spike at the end, give them a blow on the snout, hard enough to make sure of them, and prevent them from making their escape. In this manner they serve every one they can come at. The fat which covers the flesh is flayed off with the skin, and put up in large casks to make train oil. The skins, when they have sprinkled some salt upon them, to keep them from rotting, are rolled up singly. The catching of seals is sometimes as profitable as the fishing for whales; for a ship may carry off seven or eight hundred casks of fat in a season, and they frequently take two or three hundred in a day. What our fishermen affirm, appears very strange, namely, that these creatures, in a flock of a thousand together, will steer their course as exactly as if they were directed by a compass; for when they perceive any noise, or are driven away from a flake of ice, and are obliged to take shelter anywhere else, if the wind serves, the seamen have nothing else to do, but to set sail after them, and when they have observed what course they took at their departure, they steer exactly to the same point of the compass, and they may be sure of finding them, on the first flake of ice they meet with on their course.

"A great number of seals are taken at Faroe, in the dark and deep caverns of the rocks with which that island abounds. The manner of doing it is very well related by the curious Mr. Lucas Debes, in his Description of Faroe, p. 151, &c. 'They have many ways of catching them besides shooting. Formerly they

used nets, but few do it now; for they hunt them with dogs bred for the purpose. As the sight of the seal is but imperfect when awake, and he is generally sound asleep upon the rocks, the dogs easily approach them against the wind, (that they may not smell them,) start upon them unawares, and seize them by the throat, holding them fast till the master comes and kills them. The third way is seldom practised, and is called Paa Later. The word Later is not a Latin, but an old Faroesk word, which signifies to pair; for where the seals copulate, it is usually called their Lateres. There are many vast caverns under the rocks close to the sea, which are like vaulted cellars, the entrance to some of which is but small, like a door, so that a narrow boat can but barely get in. Within there is a stagnant deep pool, that they may row in, but the farther they advance the shallower it becomes, till at last they find themselves upon a dry rock, which forms a vaulted roof over their heads, and produces an extraordinary echo. All here is so dark, that there is no distinguishing day from night. In these dismal caverns, the seals take up their abode by hundreds together, and therefore the inhabitants think that they copulate there; and thence call those places Later; and to look out for those places to kill the seals, they call Paa Later.

"This later is of two sorts; the one is when the entrance is under water, and is therefore inaccessible, and is called *Kaufue* Later, because the seal kaufuer, *i. e.* ducks under water, when he enters it: the other has the entrance above water. To get into these caves, the peasants have a particular sort of narrow boats. As they know the time when the young ones are fat and full grown, they then set out, and always have two boats in company. One goes into the cavern, while the other is left outside the entrance. They have a rope of eighty fathoms or more fastened to these boats, at each end, that if the boat which is gone in, should be filled with water, which often happens, the other, upon a signal given, may draw it out, and save the men. As the entrance is narrow, they have boat-hooks to each boat, which they make use of to push themselves in and out. They carry a light, which is a torch as thick as a man's arm, along with them, that they may see how to strike the seals: this light they hide in the boat, that the seals may not discover the men, till they get upon the dry rock. When they have got in so far, that they can feel the ground with their boat-hook, then one of the men jumps out of the boat into the water, up to the neck, and he carries a club to strike the animal with, which is called Kobbe-Gasse. Another man follows the former, with a light in each hand, which he is obliged to hold higher than his head to

keep it above the water: then a third man follows also armed with a *Koll*, or Kobbe Gasse. When the young ones, which lie on the ground, see the light and the men, they strive to get into the water; as for the old ones, they get upon their paws, and stand upon the defensive with open mouths; especially the male, who will often make the man give way; for when he strikes at him, he will lay hold of the stick and wrench it from him, and throw it aside out of the man's reach. In this case, the third man comes forward with his club, and strikes him on the back part of his neck, and so knocks him down. The females are not so bold, but always strive to get away if they can. If they happen to hit the creatures right on the head, they are stunned with the blow, and then they immediately cut their throats. When they have destroyed all the old ones, they fall upon the young, which usually lie quiet a good way from the water, and neither mind the men nor the lights, but suffer themselves to be killed without resistance. When the execution is over, they drag the dead carcases to the water, and fasten them to the rope, by which the boat without the entrance hauls them out. Then they row out with their boats; but if the water be shallow, the outer boat drags out the other, with the men, &c. By this method they sometimes take a great many, to the number of fifty or sixty, in one cave. The old ones are often as big as an ox, and so very fat, that there is sometimes three vaager (about 108 lbs. avoirdupoise) taken out of one. The hide they use for shoes, the flesh they eat, and the fat is melted for train oil, and part of them they pickle and eat.'"

This account must instantly recall to the mind of the classic reader Homer's exquisite description of Proteus tending his marine herd. The circumstance of the peculiarly fetid effluvia attending these animals has not escaped the vigilant observation of the ancient bard. We may be pardoned for transcribing the passage.

Τοφρα δ' ἄρ ἦγ' υποδῦσα θαλάσσης ἐυρέα κόλπον,
Τέσσαρα φωκάων ἐκ πόντια δέρματ' ἔνεικε·
Πάντα δ' ἔσαν νεόδαρτα· δόλον δ' ἐπεμήδετο πατρί·
Εὐνὰς δ' ἐν ψαμάθοισι διαγλάψασ' ἁλίησιν
Ἧστο μένος', ἡμεῖς δὲ μάλα σχεδὸν ἤλθομεν αὐτῆς.
Ἐξείης δ' ἔυνησε, βάλεν δ' ἐπὶ δέρμα ἑκάστῳ.
Κεῖθι δὴ αἰνότατος λόχος ἕ¬λετο· τεῖρε γὰρ αἰνῶς
Φωκάων ἁλιοτρεφέων ὀλοώτατος ὀδμή·
Τίς γὰρ ἂν ἐναλίῳ παρὰ κήτεϊ κοιμηθείη;

Αλλ' αὐτὴ ἐσάωσε, καὶ ἐφράσατο μέγ' ὄνειαρ·
Ἀμβροσίην ὑπὸ ῥῖνα ἑκαστῳ θῆκε φέρεσα,
Ἣδὺ μάλα πνείουσαν· ὀλέσσε δὲ κήτεος ὀδμή.
Πᾶσαν δ' ἠοίην μένομεν τετληότι θυμῷ.'

Odyss. lib. iv. 435. 447.

Meanwhile the goddess deep into the gulphs
Of ocean plunging, from the bottom brought
Four hides, the skins of Phocæ newly slain,
Fore-casting to deceive her ancient sire.
Four cradles in the sea-sand next she scooped;
Then waited our approach. We soon arrived;
When side by side she lodged us, and a skin
Cast over each. But terrible we found
Our ambush there, so rancid was the scent
And noisome to us all; for who could rest
Extended at a foul sea monster's side?
But she a potent remedy devised
Herself to save us, who applied beneath
Our nostrils sweetest odours of divine
Ambrosia, which the fishy scent subdued.

Cowper's Translation.

NOTE XII. — Page 185.

A more explicit statement of the opinions generally prevalent respecting the transmigration of souls, has been given by later Missionaries: it is as follows. As soon as a person dies, his soul is supposed to animate a new-born infant, which receives the name of the departed, and is from that time adopted by the surviving relatives, weaning them by degrees from their excessive grief. This is called a re-animation or resurrection of the defunct. An European who, unacquainted with this custom, enquires after the deceased, or mentions his name, before he has, in their opinion, entered upon a new existence; instead of an answer, meets with sullen looks from the family, which are soon succeeded by the most piercing cries and shrieks. Children are most frequently named after their deceased grand-parents, or other near relatives famous for their cleverness in hunting; and are believed to inherit their talents.

NOTE XIII. — Page 192.

Though the notion of a Deity does not appear to have been at any time extinct amongst the Pagans of Greenland, yet owing to their remote and insulated situation, which has for so many ages separated them from all inter-communion with their primitive stock, and from the absence of an organised body of men, devoted to the maintenance of an idolatrous system, they have retained fewer traces of an original mythological creed, than almost any other nation. Yet amidst the faintness of their few religious ideas, antecedent to the arrival of the European settlers, we seem to recognize the belief in the existence of a good and evil principle. What kind of worship they addressed to these beings, or whether they ever paid any religious rites to either of them, it is impossible to decide.

Many circumstances concur to strengthen the opinion, that the ancient Greenlanders did not consider Torngarsuk, as the Supreme Being and Creator of all things, but as an inferior deity; to whom however they ascribed divine attributes, and an immaterial essence. There is reason to suppose that they, and the kindred race of the Esquimaux, meant to express by the word *Silla* the Great Incomprehensible, and as they could form to themselves no representation of his nature, left him on that account without any external signs of adoration. The term is by the Europeans, rendered the *Air*, or the *Heavens*; but the Greenlanders understand by it a being, who looks with propitious or malignant regards on the affairs of men. When they are asked why they decline doing such a thing, they answer, "Silla might be angry." Sometimes the expression is plainer, *Sillam Innua*, the ruler of the sky. Hence, the idea which they obviously attach to the word is that of a being who pervades and surrounds all things like the ambient air, and attentively considers the works of men, both to reward and punish.

The import of the term is still more evident from the common phrase, *Sillakangilak*, he has no understanding; or answering more exactly to the French, "il n'a point d'esprit." It is synonymous with the πνεῦμα, or pure intelligence of the Grecian and Oriental philosophy. Thus we see, that like the Chinese, who worship their Supreme God, under the appellation of Tien, the Heaven yet associate with him in divine honours, an assemblage of other deities; like the American Indians, who, in conjunction with the Great Spirit, reverence a multitude of Manitu, or subordinate spirits of the elements; or like the more enlightened sages and poets of Greece and Rome, who while they encouraged

or connived at the national polytheism, themselves entertained the belief of a great First Cause; the rude inhabitants of Greenland have peopled the elements with a number of Torngaet, whose supernatural agency produces all those phenomena which exceed their comprehension *, superadded to that spiritus' nature, whom they cannot otherwise express than by the name of Silla, the intelligence, the being who resides in the air, and whose subtle essence permeates and is circumfused around the universe. Nor does the resemblance stop here. As the schools of Greece, unable how else to conceive of their first cause, generally held it to be the soul of the world, and maintained the co-eternity of the world with God; the Greenlanders call the universe, *Sillarsoak*, the great Silla, evidently under the same notion. Hence it is, that the present heathen inhabitants of Greenland and Labrador do not attribute the creation to Torngarsuk; and to enquiries respecting the origination of the world, they answer, "It has always been as it is now, and thus it will ever be."

From these facts we may safely draw the inference, that the Greenlanders formerly possessed a religious creed, coinciding in its leading features with the mythological tenets of most other pagans; and that as they receded farther and farther towards the utmost limits of the north, they suffered it to fall by degrees into neglect and oblivion. Nor can we fail to notice the uniformity in character and operation of the general corruption of men, who having no Divine Revelation, or refusing to acknowledge it as such, are plunged in the same intellectual darkness, and influenced by the same strong delusion, *through the ignorance that is in them, because of the blindness of their hearts.* In fact, these northern savages and their designing Angekoks, though they cannot discourse so fluently of Silla and Torngarsuk, are in real theology not far behind the philosophers of antiquity, or those of modern days, unworthy of the venerable name, who with unhallowed pains, in the face of sound reason and of their own conscience, have raked up the rubbish of heathenism to revive the Anima Mundi, and other long-forgotten chimeras. And whence comes it?

* These spiritual agents appear to supply in the Greenlandic mythology, the part assigned to another occult power by certain of the learned in our own country, before the introduction of the Newtonian philosophy. "The Spirit of Nature, or inferior soul of the world," says Dr. Henry More, in his Enthusiasmus triumphatus, "is a substance incorporeal, but without sense and animadversion, pervading the whole matter of the Universe, and exercising a plastical power therein, operating such phenomena as mechanical powers cannot explain."

"BECAUSE THAT, WHEN THEY KNEW GOD, THEY GLORIFIED HIM NOT AS GOD, NEITHER WERE THANKFUL, BUT BECAME VAIN IN THEIR IMAGINATIONS, AND THEIR FOOLISH HEART WAS DARKENED." See Crantz, *Fortsetz. der Hist. v. Greenland*, p. [illegible]

NOTE XIV. — PAGE 209.

THE following is a translation of the middle part of the Apostle's Creed, with Luther's paraphrase. The affixes of the pronouns and prepositions are distinguished by a different type from the rest.

Credo ego Jesum Christum in, Dei Filium unicum ejus in,
Operpunga Jesus Christusmut, Gum Ernetuanut,
Dominum meum in; a Spiritu Sancto cum esset conceptus,
Nalegauti-nut; Annernerub ajunginnerub pimmago,
Virgine a Maria natus est, Pontio Pilato gubernante
Niviarsiamit Mariamit erniursok, Pontius Pilatus nalegautillugo
passus est, affixusque lignum in crucem in,
anniar-ti-tok, kikkiek-tortitorlo kersungmut senningarsomut,
mortuusque sepultus est, infernum in, exitum non habentes ad,
tokkovlunilo illirsok, allernut, annivekangitsometunnut,
se recepit, die tertioque mortuis a surrexit, Cœlum inque
pirsok, udlut jungajuænilo Tokkorsonit makkitok, Killangmullo
ascendit, omnipotentis Dei Patris sui manu ejus dextra in
kollartok, ajukangitsub Gum Attatame Tellerpiæt tungane
sedem capessit, inde rursus venire vult, vivosque
ivksiauvok, tersanga ama tikki ytsomar-y-ok, Innursullo
mortuosque ut judicet eos.
tokkungarsullo ekkartotillugit.

Ita hoc est.
Imaipok.

Credo ego Jesum Christum Deum meum æterno a
Operpunga Jesus Christus Gudioluinnartok issokangitsomit
Patre suo a natum; Credo itidem et hominem verum natum
Attatamit erniursok; Oper-y-ungatog Innuluinnartok erniursok
terra in, Virgine a Maria a, Dominum meum esse, redemit me
nuname, Niviarsiamit Mariamit, Nalegarigavne, annaupanga,

cum condemnatus essem, servum esse cessare fecit me, peccato a
ekkartotaugama, kivga-yungnær-sip*anga*, Ajortun*nut*
omni a, morteque a, Diaboli potestate a et, pretio
tamnia*nut* tokko*mul*lo, Tornasub persauner*anul*lo erdlingnartunnik
terræ bonis, nummis pretiosis neque, redimere non volu.. me,
Nunab peenik, anning-aurseksenniglonect pingikalloarp*anga*,
sanguine suo cum sed, pretioso valde cum carissimo
Aung*minig*le, erdlingnartorsoar*mik* idluartuinnarto*mik*,
incompâribili, cum esset innocens, Passione sua morte suaque
nellekangitso*mik* piauang-inname, Annia*minik* Tokko*minig*lo
redernit me. Ita fecit ut me iterum habere vellet, a me et
annaup*anga*. Taimailiorpok pi-gi-omau-ulunga, uam*nul*lo
ut serviatur justitia in, innocentia inque, gaudio inque,
nallekullune Idluarner*mik* Piauanginner*mig*-lo, Tipeitsungner*mig*-lo,
regno suo in ut vivam una cum ipso et ut cum ipso regnem ;
Nalegauving*mine* innuk-attigek-kullunilo nalegauk-attigek-kullune;
Quemadmodum mortuis a surrexit, et vivit æternum usque.
Sorlo Tokkorsun*nit* makkitok, innuviunilo issokangitso*mut*
Hæc omnia creditu digna et vera sunt.
Tamakko tammarmik oper-nard-lutiglo illomorput.

NOTE XV. — Page 234.

Professor Mallet, of Geneva in his tour through Italy, with the son of Lord Bute, has collected some fragments preserved in the archive of the Vatican, relating to the history of the Greenland-Norwegians.

The first notice of an episcopal see at Gardar occurs in 1276. It was decreed in the second general council of Lyons, to contribute the tenths of all ecclesiastical revenues, towards the expenses of the crusades. The Archbishop of Nidros, now Drontheim, had the charge of collecting the tithes in Greenland, which belonged to his diocese. But having no great inclination for the discharge of this duty, he petitioned Pope John XXI., for leave to entrust it to a commissioner. This was granted him in a papal brief dated from Viterbo, December 1275, which states as the reason for this indulgence, that five years were required for a journey to Gardar and back again. The Arch-

bishop being afterwards involved in a dispute with his king, respecting his spiritual rights, left the kingdom, and deposited the monies collected with the church, from whence they were transmitted to Rome, in 1287.

In 1326, Pope John XXII. committed the levy of the tenths of all estates held by the church in Norway, Sweden, and Gothland, to a certain Bertrand de Ortolis, who has left the following entry: "Received at Bergen, Aug. 11. 1327, from the Archbishop of Drontheim, the tithes of the bishopric of Greenland, consisting of 127 lispfund, (each 20lbs. English,) of walrus-teeth, which I sold, Sept. 6. by the advice of the Archbishop of Drontheim, and the Bishop of Bergen, to Jean de Prè, a Flemish merchant, for 12 livres, 14 sols Tournais, half of which has been paid to the king. In right of Saint Peter's pence, I have received for Greenland, three lispfund of walrus-teeth, which I have sold at 2 sols per pound." If (as we are informed) this commodity was in those times esteemed of equal value with ivory, the precious metals must have been extremely scarce.

A brief of Pope Eugenius IV. is still extant, bearing date, Sept. 24. 1432, in which he nominates Brother Bartholomæus de Sancto Ypolito, priest, and Baccal. Theol. to succeed the deceased bishop Nicholas in the see of Greenland.

This does not altogether accord with the chancellor Huitfeld's chronology. According to his account, Andrew was sent as the last bishop to Greenland in 1408, and with him all communication with that country ceased. From this and another source we should be inclined to fix the extirpation of the Norwegians at a somewhat later period than that assigned by Torfæus.

We allude to a letter of Nicholas V. of Sept. 20th, 1448, addressed to the bishops of Skalholt and Hola in Iceland, in which he testifies his heart-felt sympathy for the miserable fate of the island of Greenland, whose inhabitants, after having embraced the Christian faith nearly six hundred years ago, through the means of that glorious preacher, King Olaus, of blessed memory, and faithfully adhered to the pure ordinances of the Apostolic See, had been invaded by a fleet of barbarians, and their country cruelly devastated with fire and sword, so that only the parochial churches were left standing. The original runs as follows: —

"Pro parte dilectorum filiorum indigenarum et universitatis habitatorum insulæ Grænlandiæ, quæ in ultimis finibus Oceani ad septentrionalem plagam regni Norvegiæ in provincia Nidrosiensi dicitur situata, longo lachrymabilis querela nostrum turbavit auditum, amaricavit et mentem, quod in ipsa insula, cujus et incolæ ab annis fere 600 Christianam fidem, gloriosi sui præco-

nis B. Olai regis prædicatione susceptam, firmam et intemeratam sub sede Romanæ ecclesiæ et sedis Apostolicæ institutis servarunt; et, quod tempore succedente in dicta insula, populis assidua veneratione flagrantibus, sanctorum ædes quamplurimæ & insignis ecclesia cathedralis erectæ fuerunt, in quibus divinus cultus sedulo agebatur, donec ex finitimis littoribus paganorum, ante annos 30, classe navali Barbari insurgentes, cunctum habitatorum ibidem populum crudeli invasione aggressi, et ipsam patriam ædesque sacras igne et gladio devastantes, solis in insula Grœnlandia relictis ecclesiis parochialibus, quarum latissimus dicitur extendi terminus, quas propter crepidines montium commode adire non poterant, miserandos utriusque sexus indigenas, illos præcipue quos ad subeundum perpetua onera servitutis aptos videbant et fortes, tamquam ipsorum tyrannidi accommodatos, ad propria vexerunt captivos. Verum quia, sicut eadem querela subjungebat, post temporis successum quamplurimi ex captivitate prædicta redeuntes ad propria, et refectis hinc inde locorum ruinis, Divinum cultum posse tenus ad instar dispositionis pristinæ ampliare et instaurare desiderent, et quia, propter præteritarum calamitatum pressuras, fame et inedia laborantibus non suppetebat huc usque facultas presbyteros nutriendi et præsules, toto illo tempore triginta annorum episcopi solatio et sacerdotum ministerio caruerunt, nisi quis per longissimam dierum et locarum distantiam Divinorum desiderio officiorum ad illas se conferre voluisset ecclesias, quas manus barbarica illæsas prætermisit.

" Hoc de premissis certa notitia nos habentes, fraternitati vestræ, quos ex vicinioribus episcopis insulæ præfatæ esse intelligimus, committimus et mandamus, quatenus scilicet requisito ad hoc metropolitani consilio, si loci distantia patiatur, personam utilem et idoneam eis in episcopum ordinare et instituere valeatis," &c.

NOTE XVI. — Page 242.

"*Karalit* or *Karaler* is the common national appellative both of the Greenlanders and Esquimaux, whether derived from Karlik, the name of an ancient Tartarian tribe, or from Kallak, the great father of the Greenlanders. In the latter case the plural would be Kalalit.

"There can be no hesitation in affirming, that Greenland was peopled from Labrador, not Labrador from Greenland. The only question of difficulty is, from which of the tribes of Northern Asia they are originally descended. Many are inclined to deduce their origin from the Kamtschadales, as they border on Behring's Strait, and closely resemble the Greenlanders in their figure, dress, and baidars or leathern boats. But mere proximity proves nothing. The Lettonians and Esthonians inhabit the same province of Livonia, yet the two races differ from each other as much as both differ from their neighbours, the Russians and Swedes, the Poles and Germans. As to similarity of stature and complexion, these are necessarily determined in a great measure by the climate and manner of life. The food and clothing of a nation adapt themselves to the nature of their country and its products. He who is exposed to a rigorous atmosphere, wraps himself in skins and furs, and commonly falls below the average standard in height. The inhabitant of the sea-coast lives on fishes and marine animals. And if he has no timber or iron to manufacture it into boats, his invention teaches him another and a simpler method of constructing small craft, The national character, the manners and customs, civil and religious, but particularly the language, are much less fallible tests of resemblance. In these points, the Kamtschadales, and their neighbours, the Koriaks, Kuriles, and Tschukotschi, exhibit a very material discrepancy from the Greenland race. They marry promiscuously, with the single exception of parents and children. In case of twins, one infant is always destroyed. In their entertainments, the room is heated like a stove, and the guest is plied with victuals until he is completely surfeited; in return for which bountiful hospitality, he is obliged to make his host whatever present he may desire. Their corpses are not buried, but exposed to the dogs; the Greenlanders, on the contrary, dread worse than death to lie unburied, the prey of ravens and foxes.

"The Kamtschadales have still several religious rites, and worip a number of idols; but instead of paying any honours to the preme Being, they load him with abuse, and ascribe to him ry calamity which befals them. There is also a great dissimilarity in the division of labour. The wife must, indeed, make clothes and shoes, but it is the business of the husband to build houses, make fires, and kill, skin, and cook the game. The language is so abundant in sounds, such as *tch*, and terminations in *tchin*, *ksi*, *ksong*; which defy the utterance of a Greenland tongue, that Kraschenninikow supposes them to be of

Mongolian, and not Tartarian descent.* Such terminations are farther beyond the compass of a Greenlander's vocal powers than the soft combinations of two mutes. Yet even these they are forced to alter or separate in pronunciation; thus Eppeta for Jeptha, Peterusse for Petrus, Caranesse, and the women Calanesse, for Crantz.

"Dismissing, therefore, the pretensions of Kamtschatka to be the birth-place of the present race of Karaler, we shall meet with no Asiatic bribe to which it bears a nearer affinity in stature, habits, and disposition, than that of the Calmucks. Their inland situation, indeed, and the natural riches of their country, obviate the necessity of their seeking for a precarious subsistence from the ocean. They have a religion connected with many ceremonies; but this only proves that the Karaler have been severed for a number of centuries from the parent stock, and a very inconsiderable space of time is sufficient to efface almost every vestige of a religious system. Nor is it in the least unlikely, that after the separation, the Calmucks may have altered their religion, or embraced a different one, either voluntarily adopted in their perpetual wanderings, or forced upon them by a victorious tribe. Our acquaintance with the Calmuck language is yet too slight to enable us to judge of its radical identity with that of the Karaler. It certainly contains a large store of words not to be found in the latter. But conquests and intermixtures soon effect a mighty change in a language; witness the present state of the kindred dialects of France, Spain, and Italy. Who would believe that the Mecklenburghers and Pomeranians are sprung from the Wends, were not the fact attested by history, and by the proper names of persons and places whose etymons exist only in the Wendish; *ex. g.* Kameke, Chemnitz, Camentz, from the Wendish *Kamm*, a stone. The pronunciation of the Calmucks, and their numerous terminations in *ak*, *æt*, *uk*, *ut*, &c., are very similar to those of the Greenlanders. Many proper names, as Ajuk, Torgæt, Uiræt, are very common in both languages. More of the original form of the language is doubtless retained in the dialect spoken by the Karaler. A tribe dispossessed of its ancient settlements, and driven into a remote angle of the earth, excluded from intercourse with other nations, without any tendencies either to improvement or deterioration, is much less likely to change its language and manners, than the parent race which has shared in the fluctuating progress of the species, or been convulsed by the sudden and violent revolutions of war.

"The Britons of Wales illustrate the first part of this com-

* See the Russian Professor Stephen Kraschenninikow's *Description of Kamtschatka.*

parison; the second is evidenced by the case of the Wends, who are now amalgamated with the Teutonic race, and have lost almost every mark of the Slavonic origin." Crantz, *Fortsetzung*, p. 337.

NOTE XVII. — Page 255.

"They lived upon milk, cheese, butter, raw flesh, and fish according to their custom, being averse to bread and boiled meat, but much more to wine; the oil of whales being their beloved liquor.

"A Spanish ambassador arriving in Denmark at the same time, the king willing to give this minister a divertisement, ordered the savages to row in their little canoes, which they performed with admirable dexterity.

"But to give you the best idea I can of the shape of these boats, I would have you fancy a weaver's shuttle, of ten or twelve feet long, composed of large whalebones, of the thickness of an inch, or thereabouts, covered both within and without, not unlike the sticks of an umbrella, with the skins of sea-dogs and sea-calves, stitched together with the nerves of the same creatures.

"We must also suppose this engine or boat to have a round hole on the top, in the middle, about the compass of both the thighs of a man, and that it grows narrower and narrower by degrees at both ends, proportionably to its bigness, like the watermen's boats on the Thames. The chief strength and ingenuity of the whole engine consists chiefly in the junctures at both ends, where these whalebones are joined and fastened together; and in the opening, hole, or circle above, in the circumference whereof all the whalebones from the lowermost parts meet; the demi-circle underneath being fastened to the uppermost circle or round hole, like a rundlet where it opens towards its panniers. It is further to be observed, that all the whalebones underneath, and of the sides of this boat, either pass through or end in this demi-circle; and that every thing is so well joined together, that what with its light weight, and the good management of the rower, it will bear against the most violent storms at sea.

"The savages, when they are to make use of these boats, get into them by the hole or opening at the top, and stretching their legs towards one or other of the two ends, stop the apertures left with their waistcoats, made of dog or sea-calves' skins; these they fasten close to their middle, and the hole wherein they sit, and

cover their heads with certain bladders or caps tied to the upper part of their waistcoats; which done, they are proof against all tempests, beyond what may be expected from ships of a considerable bulk; for though they are oftentimes turned topsy-turvy, they always turn upright again. They make use only of one oar, which they manage with the same dexterity as the rope-dancers do their poles, to keep an even balance; and with this they row so swiftly, that, as it was tried at the same time, they could keep pace with a boat of sixteen oars. I did not tell you without good reason, that these boats resemble a weaver's shuttle, it being certain, that the shuttle managed by the most dexterous workman does not go forward with the same swiftness as these boats do upon the water by the dexterity of these savages.

"The Spanish ambassador being extremely delighted to see five of them perform their task with such incredible swiftness, and to cross and pass by one another with so violent a motion, without touching their oars or boats, was so generous as to give a present of money to every one of them, which they bestowed on clothes after the Danish fashion. Now some of them bought themselves boots and spurs, and feathers in their hats, offering to serve the king on horseback.

"But they were soon after seized with their former splenetic fits; all their thoughts being bent upon their native country. The Danes did what they could to render their captivity easy, representing that they were and always should be treated among them like friends and countrymen; which seemed to have some influence upon them. They also endeavoured to instruct them in the Christian faith, but as they could never be brought to learn the Danish tongue, and as faith comes by hearing, it was impossible to make them truly sensible of the mysteries of the Christian religion.

"At length two only of these savages were left, who outlived their countrymen ten or twelve years. One of them having often mentioned that they had pearls in his country, and that he used to be employed in fishing for them, the governor of Calding took him along with him to the pearl-fishery there, where he gave him sufficient employment in the river. The savage being an excellent diver, brought up abundance of the best muscles, and for the most part, some of that kind which contained very good pearls. Pleased with his success, the governor, imagining that in a little time he should be able to sell his pearls by the bushel, made him dive under the ice in the midst of winter, no otherwise than if he had been a spaniel dog, till he fell ill and died.

His comrade now remaining alone, inconsolable for the loss of his companion, found means, the next spring, to get into one of their little boats, and crossed the sea to the opposite shore of the Sound, before any body had the least suspicion of his flight; however, he was pursued and overtaken, but not before he had got betwixt thirty and forty leagues out to sea. Being given to understand by certain signs, that he must have been infallibly swallowed up by the waves of the sea, before he could reach the Greenland shore, he answered by signs, that his intention was to keep along the coast of Norway to a certain height, from whence he would have crossed over to Greenland by the direction of the stars. After his return to Copenhagen, he died with melancholy. This was the end of the unfortunate Greenlanders." La Peyrère, in Churchill's Collection of Voyages and Travels.

NOTE XVIII.—Page 255.

Notwithstanding the uncertainty expressed by Crantz, there is no reason whatever to suppose that Munk touched on the coast of Greenland, as is sufficiently evident from the narrative of his voyage; an abstract of which may serve, at the same time, to convey a more definite idea of the unexampled hardships and dangers encountered by the first daring navigators of these icy seas.

"Captain Munk, who had been selected by the King for this expedition, as a person of acknowledged skill and intrepidity, set sail from Elsineur, May 16th, 1619, with two stout ships, one manned with forty-eight men, the other with sixteen. He arrived on the 20th of June near Cape Farewell, being very rocky, and covered with ice and snow. From thence, steering his course to the north-west, towards Hudson's Straits, he was much incommoded by the ice, which, however, did him no considerable damage, he having sea-room enough. Among other accidents that befel him, it froze so violently on the 18th of June at night, and the winds blew so hard and cold, that his sails were rendered useless by reason of the cold which adhered to them; yet the next following day proved so excessive hot in the afternoon, that they were forced to lay by their clothes, and to go in their shirts only.

He did not arrive in Hudson's Straits till the 17th of July,

which he called after the King of Denmark, Christian's Straits. His first landing was in an island directly opposite to Greenland; and having sent some of his people to take a view of the country, they found no men, but by their footsteps were convinced there were some in this island. The next day they saw some of the savages, who seeming to be surprized at the sight of the Danes, hid their arms behind a great stone-heap, and then advanced toward them in a friendly posture, but kept continually a watchful eye upon their arms, for fear the Danes should come too near them. Notwithstanding which, they found means to get between them and their arms, which they seized. The savages seemed to be exceedingly troubled at this loss, and in an humble posture begged the Danes to have them restored, without which they were not able to subsist, hunting being their only livelihood. They offered to exchange their clothes for them, which moved the Danes at last to compassion; so that they not only gave them back their arms, but also presented them with several toys, which they received very thankfully, and in lieu of them brought several sorts of fowl and fish. One among them having got a small looking-glass, and seeing himself in it, was so overjoyed, that he put it in his bosom, and did run away as fast as his legs could carry him. The Danes laughed heartily at his simplicity; but what diverted them more than all the rest was, that they perceived some of these savages to make their courtship after their way, to one of their ship's crew, who, having long black hair, and being of a swarthy complexion, with a flattish nose, they took him for one of their countrymen, who perhaps had been carried away from Greenland some time before; which often furnished them afterwards with matter of laughter, so that the poor fellow was always jeered as long as the voyage lasted.

"On the 22d of July, Munk hoisted his sails to leave the island, after planting the Danish arms there, but met with such bad weather, and so many vast ice-shoals at sea, that on the 28th of the same month he was forced to seek for shelter betwixt two islands, near one of which he came to an anchor: but finding it unsafe to continue thus, he brought his ships as near the shore as he possibly could, so that at low water they lay upon the sand; and the high tide carried such a prodigious quantity of ice to the shore, that they were in no small danger, if by their industry they had not prevented it. There was a great ice shoal near fifty feet thick, which being loosened by the violence of the sea, carried all before it, and among the rest their shallop, which narrowly escaped from sinking.

"Ashore they saw several footsteps of men, a sign that the place was not destitute of inhabitants; but whatever care they took, they could not get sight of any. They also found there some mineral stones, and very good talc, of which they carried off several tun-weight. The bay where he came to anchor, he called Hareford, from the great number of hares they met with there. He again set up the arms of Denmark, and the initial letter of his royal master, namely, C. IV.

"After passing Hudson's Straits, or, as he thought proper to call them, Christian's Straits, he got into Hudson's Sea, which he furnished with another name, or rather gave it two names instead of one. For that part of it which washes the American shore (the northern part) he called Mare Novum, or the New Sea. To the other which extends to Greenland, if it be really Greenland, he gave the name of Mare Christianum, or Christian's Sea. On the 7th of September, he cast anchor in a large inlet, latitude 63° 20′, which he called Munk's Winter Harbour, and after his people had refreshed themselves for some days, he ordered them to bring the ships into a little creek, where they were sheltered against the violence of the winds and ice. The next thing they had to do was to procure themselves good huts against the approaching winter season. This harbour lay near the entrance of a river, which was not frozen up in October, though the sea was full of ice all round about.

"Captain Munk had a mind to go up the river in a boat, but could no further than about a league and a half, by reason of the cataracts, or rocky water-falls that opposed his passage. He then marched with some of his men about four leagues deep into the country, to see whether he could meet with any of the inhabitants; but nobody appearing, he resolved to return another way. Here he met with a certain stone raised above the ground, upon which was painted an image resembling the devil, with claws and horns; near this stone was a place of about eight feet square, inclosed with lesser stones. On one side of this enclosure there lay a heap of small flat stones intermixt with moss of trees: on the opposite side was a large flat stone laid upon two others in the shape of an altar, upon which they found three coals laid across. They saw several more of those altars, as they were walking about, and some footsteps of men near each of them, though they did not come in sight at that time. It is very likely that the inhabitants used to sacrifice upon those altars, either with fire, or perhaps offer their sacrifices to the fire itself; for round about them they saw abundance of bones, which probably were the bones of the

sacrificed beasts, whose flesh the savages had devoured raw, according to their custom. They met also with many trees, cut down to the roots with iron instruments; and with dogs that were muzzled. But what most confirmed them in their opinion, that this isle was not destitute of inhabitants, was that in many places they could discover the holes where they had fixed the poles belonging to their tents, and found many pieces of skins of bears, wolves, dogs, and sea-calves, wherewith they used to cover them; which seemed to intimate that the inhabitants here did lead a vagabond life, like the Tartars and Lapponians.

"After the Danes had planted their huts, they cut good store of wood, to be laid up for the winter, and killed abundance of wild fowl. Captain Munk killed a white bear with his own hands, which they eat; and he says expressly, that it agreed very well with them. They catched likewise abundance of hares, partridges, and other fowl, besides four black foxes, and some sables.

"On the 27th of November, there appeared three distinct suns in the firmament, though it was a very thick and gross air; and on the 24th of January next following, two suns appeared very distinctly. The 10th of December they observed an eclipse of the moon about eight o'clock at night; and the same night they saw for two hours together, the moon surrounded by a very bright circle, with a cross in the middle of it, dividing the whole body of the moon into four parts. This meteor seemed to be the forerunner of the ensuing miseries, and almost total destruction of the Danes, as you will see by the following account:

"The cold began to increase with the winter season, to such a degree, that they saw ice of 300, nay of 360 feet thick: no beer, no wine, or brandy was strong enough to be proof against it, but froze to the bottom, and the vessels split in pieces; so that they cut the frozen liquor with hatchets, and melted it before the fire, before they could drink it. If they happened to leave any quantity of water in their copper or tin vessels, they found them all in pieces the next morning. Neither were the poor Danes able to resist so excessive a frost, which mastered the metals, for they all fell sick, and their sicknesses increased with the cold; they were generally seized with a griping looseness, which did not leave them till it put an end to their days. Thus they dropt away one after another, so that about the beginning of March, the captain was fain to do duty as a sentry, for want of others. The worst was that the spring did

augment their distemper, for their teeth were ready to fall out, and their gums swelled to that degree, that they could not take any other nourishment but bread soaked in water. The poor remnants of these unfortunate wretches were in the next following May seized with another looseness, with such violent pricking pains in their limbs, as made them look like mere shadows; their arms and legs being quite lame, and full of blue spots, no otherwise than if they had been beaten with sticks; being a distemper not unknown to seamen, by whom it is commonly called the scurvy. So many of them died, that there were not enough left to bury them, the rest being likewise sick and very weak: and to complete their misery, they began to be in want of bread, instead of which they made use of raspberries, which they digged out from under the snow; but they would not keep in the least, so that they were obliged to boil and eat them immediately. They noticed the 12th of April, as a very remarkble day, because it then rained the first time after seven months, there not having fallen a drop of rain all that time.

"The spring rejoiced them with the sight of many sorts of birds, none of which had appeared all the winter long, but their weakness would not permit them them to shoot or catch any of them. About the middle of May they saw abundance of wild geese, swans, ducks, and an infinite number of small birds, partridges, ravens, falcons, and some eagles.

"On the 4th of June, Captain Munk himself fell so dangerously ill, that he took no food for four days together; and expecting nothing else but present death, he made his last will, in which he desired those that might by chance come to this place, to bury his corpse, and to send the diary of his voyage to the King of Denmark. After four days were past, he began however to recover a little, and with much ado got out of his hut, to see whether there were any of his ship's crew left alive; of whom he found no more than two of sixty-four persons he brought along with him. These two being overjoyed to see their captain in a condition to stir abroad, took him in their arms, and carried him to a fire, to refresh his spirits. They now began to encourage one another, promising to stand by one another to the last gasp. They digged every where among the snow, till at last they met with a certain root, which being both restorative and food to them, they recovered in a few days. The ice now began to melt apace, so that on the 18th of June, they caught some salmon, and other fish; which, with what exercise they used in hunting, so strengthened them in a little time, that they resolved to return to Denmark.

" The summer season approaching, they were extremely pestered with gnats, which made them hasten their departure, so that on the 16th of July, they went aboard their lesser ship, leaving the large frigate behind. They were much incommoded by the ice, and lost their boat and rudder. Whilst they were busy in making a new one, they fastened their ship to an ice rock; which being loosened by the tide, carried the ship away with it: but the ice being melted soon after, they got clear again, and met with their boat which they had lost ten days before. It was not long before they got fast within the ice once more; but the weather changing almost every day, they were soon released again.

" Having at last repassed the Strait, they sailed by Cape Farewell, into the ocean; but were on the 8th of September overtaken by a most terrible tempest, which threatened no less than their total destruction, they being quite tired out, and not able to manage the ship: so that leaving themselves to the mercy of the winds, they lost their mast, and the sails blew overboard, which however they made shift to save.

" In this condition they were forced upon the coast of Norway, where they cast a piece of an anchor, the only one they had, in a small creek, where they hoped to shelter themselves against the storm; but found themselves deceived in their hopes, for they were in most imminent danger of being dashed to pieces against the rocks, if by good fortune they had not got betwixt them and the shore; where after they had refreshed themselves for some days, they pursued their voyage, and arrived at last in Denmark.

" Captain Munk had no sooner set foot on shore, than he went to Copenhagen, to give the King an account of his unfortunate voyage; who not imagining him to be still among the living, received him with all imaginable marks of favour. But his evil fortune was not yet tired of pursuing him; for ruminating upon his past adventures, and being by degrees convinced of what had been the chief cause of his miscarriage, he resolved to make a second attempt, in which he hoped to supply the defects of the former. Accordingly he proposed his design to divers gentlemen of quality, and rich citizens of Denmark, who entering into a society, equipped two vessels, which he was to command in chief.

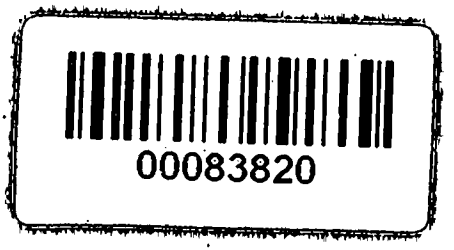
" Having taken effectual care to provide the ships with all necessaries, and to remedy all the inconveniences he had been made sensible of in his former voyage, he was ready to set sail, when the King sent for him, and happening among

other things, to speak of his former unfortunate voyage, told him that he had lost two ships by his want of conduct. The captain replying somewhat briskly, the King took his cane, and pushed it in anger against his breast. This affront he took so heinously, that he immediately went home to bed, and would not be persuaded to take the least nourishment; so that in ten days after he died for melancholy and want of food."

Churchill's Collection of Voyages and Travels, vols. i. & ii.

END OF THE FIRST VOLUME.

Printed by Strahan and Spottiswoode,
Printers-Street, London.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